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Position papers on planning for school district organization were prepared for the project staff of the Great Plains School District Organization Project, a four-state study. A total of 104 studies and reports were prepared by personnel from secondary schools, institutions of higher learning, State Departments of Education, and related educational institutions in Iowa, Missouri, Nebraska, and South Dakota. Of the 104 studies and reports, 54 were position papers developed in the areas of educational needs, demographic factors, curriculum and educational programs, educational services, and organization and finance. A total of 68 position papers and reports are presented in this publication, followed by a synthesis of findings and recommendations reported in the papers, and a discussion of the implications of the information included in the papers. (VM)

PLANNING FOR SCHOOL DISTRICT ORGANIZATION

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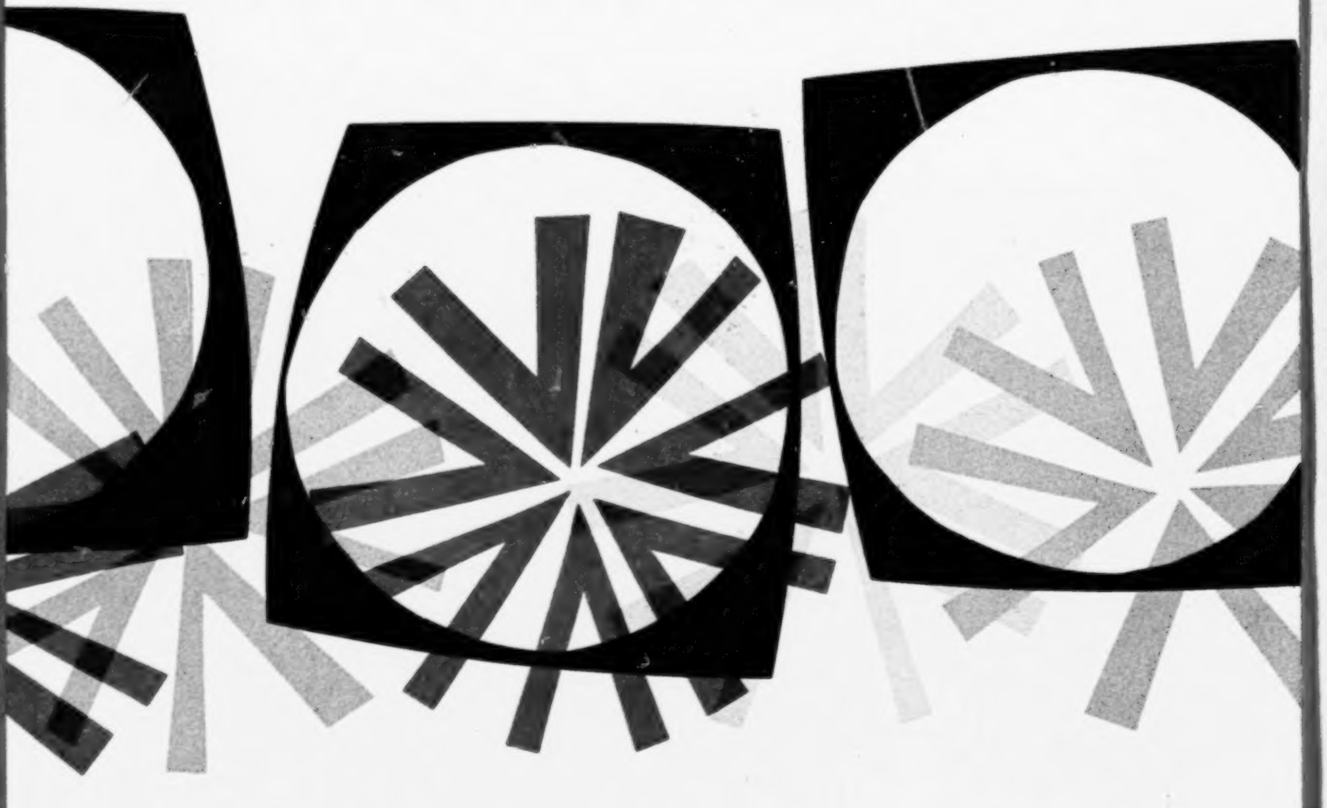

Briefs of Position Papers

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THE GREAT PLAINS SCHOOL DISTRICT ORGANIZATION PROJECT

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
OFFICE OF EDUCATION

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PLANNING FOR SCHOOL DISTRICT ORGANIZATION

Briefs
of position papers prepared for
the Project Staff

May 27, 1968

Financed by funds provided under the
Elementary and Secondary Education Act of 1965
(Public Law 89-10, Title V, Sec. 505)

The Great Plains School District Organization Project
Iowa, Missouri, Nebraska, South Dakota
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Copies of this report are available in each of the Departments of Public Instruction in the participating states, Division of School District Organization.

THE GREAT PLAINS SCHOOL DISTRICT ORGANIZATION PROJECT

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State	Name	Position
Iowa	David Gilliland	Reorganization Consultant
Missouri	Kenneth Kirchner	Assistant Commissioner
Nebraska	Floyd Miller, Chairman	Commissioner
South Dakota	James Schooler	Assistant Superintendent

THE PROJECT STAFF

State	Name
Iowa	Ellis G. Hanson
Missouri	Arthur Summers
Nebraska	1966–67—Russell Harrach 1967–68—Roger Farrar, Co-Director Roger Hanson, Co-Director William Schroeder, Co-Director
South Dakota	Earl Boxa

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(Public Law 89–10, Title V, Sec. 505)

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FOREWORD

THE GREAT PLAINS SCHOOL DISTRICT ORGANIZATION PROJECT, a four state study, is one of the most exciting and challenging projects of our time. In an era of ever-accelerating change, the educational needs of people affected by these changes are undergoing rapid modification and adjustment. The organization of school districts during the past two decades has been unable to provide the programs and services consistent with the emerging needs of our society. As a result, the educational structure is undergoing critical analysis and evaluation by legislators, business and industrial leaders and by the professional educator. It is becoming increasingly apparent that programs and services must be made available at a high level of excellence with efficiency of organization and economy of operation.

It was determined early in the study that a great number of people had a significant contribution to make concerning educational needs to be met and programs and services to be provided. Accordingly, an invitation was extended to educational leaders, professional organizations, and interested citizens to assess the research in their respective fields of interest or specialization, to review the literature, and to interpret the empirical judgment of knowledgeable and experienced personnel concerning effective school district organization. Emphasis was placed on the organizational requirements to make possible meeting the needs for which their respective programs or services were designed. Fifty-six position papers and reports were prepared for study and utilization by working committees on school district organization. Briefs of these fifty-six position papers (copies available on request) and of eight related reports are presented in this publication for the further study and analysis by individuals and committees interested in providing quality education for all children at an efficient and economical level of operation.

This project is sponsored by the Departments of Public Instruction in the four participating states. The members of the State Departments of Public Instruction, and the members of the State Boards of Education recognize that their roles and responsibilities must change with the changes in the society which they represent. Furthermore, they recognize that these changes require greatly improved programs of education, and that a new structure for education is essential to make these programs possible at a defensible level for adequate financial support.

Only a few of the many programs and services that must be given consideration in planning for school district organization are reported in a brief form in this publication. Limitations of time and money made it impossible to include all areas. The selection of topics do represent the interest and concerns of the state for which they were prepared. It is hoped that the papers reported herein may stimulate others to contribute to constructive planning for the future in relation to needs to be met, programs and services to be provided, and the significant role of structure in relation to quality, efficiency and economy.

All who have been associated with the study have been challenged by the potential which it holds in providing equitable educational opportunities for all within the foreseeable future. The members of the Steering Committee and the Project Director wish to commend those who have been associated with the project for their willingness to accept the challenge to contribute to a study designed for meeting the present and the future educational needs of all youth and adults in each of the four states.

Respectfully submitted,
Ralph D. Purdy
Project Director

The Steering Committee:
David Gilliland, Iowa
Kenneth Kirchner, Missouri
James C. Schooler, South Dakota
Floyd A. Miller, Nebraska
Chairman

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AN INVITATION TO PLANNING IN EDUCATION

Ralph D. Purdy[1]

Editor's note: "An Invitation to Planning in Education" was presented at two or more state-wide meetings in each of the four participating states. Copies were given to those who expressed an interest in preparing a position paper. Many of the briefs of position papers presented in this publication were developed as a result of this invitation to planning. Special consultants in various programs and service areas accepted an invitation by the Project Offices to develop a position paper for their respective field of specialization or interest.

SCHOOL DISTRICT ORGANIZATION— A STATE AND NATIONAL PROBLEM

School district organization is a problem of national concern in the second half of the twentieth century. More than twenty of the fifty states are actively engaged in efforts to improve the structure for public education. The challenge of science and technology in bringing about a new way of life within this generation is taxing the existing school district beyond its capacity to meet the emerging needs. The expectations of the people for "the good life" have changed significantly within the past generation, and these expectations will change again within our lifetime. Unprecedented demands upon the educational structure to meet the needs of the people, of the state, and of the nation have revealed serious limitations and have emphasized the urgency of the situation.

The explosion of knowledge, the adaptation of science and technology to improved educational programs and to the methodology of these programs, the knowledge and the skills demanded today to fill the ever changing employment opportunities, learning how to learn to live and work together in peace, both at home and abroad, are but a few of the problems that could be listed. As the attention of the people focus upon the educational needs of these times, they have been compelled to examine the educational structure which was created and which is maintained to provide programs and services to meet those educational needs. As a result, the strengthening of the structure for education has been accepted as one of the imperative needs of this century by the people of the several states.

There are many and varied reasons why school district organization is a major concern to the people, to the state and to the nation at this time. These may be listed briefly as follows:

1. The scientific and technological revolution has brought new demands upon the schools. The nature of these new demands are such in the

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[1] Project Director. The Director is on assignment to the Great Plains Project by Miami University, Oxford, Ohio.

areas of vocational education, special education, improved and expanded programs and services, that an examination of the structure for education has become imperative in order to provide programs at a level of excellence or quality with efficiency and economy.

2. The educational needs of all pupils are expanding, with these needs being identified by:
   a. The Federal Government, in the interest of national defense and the general welfare.
   b. The state government, with education as a primary function and responsibility of the state.
   c. The local level, with the identification of local needs indigenous to that community.
   d. The culture and society of which we are a part, for a perpetuation of ideals of that society, and an appreciative understanding of the heritage of all of its members.
   e. The individual, for education to be meaningful, must have value as understood and appreciated by the student.
   f. Business and industry, for the needs of our economy is dependent upon the productivity of workers in the labor and management force.
3. As more and more money is required to support public school education, the citizen, the community, state leaders, and the legislators are demanding:
   a. A higher quality of educational programs and of instruction.
   b. Increased efficiency in the operation of the schools.
   c. An economical expenditure of the taxpayers' dollar.
4. The mobility of the people, the shifting of the population from a rural to an urban economy, the development of great metropolitan areas, and the changes resulting from the scientific and technological revolution have placed demands upon the educational structure making a critical examination of that structure essential and imperative.
5. The increased cost of education due to inflation, increased enrollments, expanding and high cost programs (such as vocational education), have necessitated a reexamination of the structure for education.
6. School finance factors contributing to a reexamination of school organization includes the following:
   a. The heavy tax burden on real estate.
   b. The spiraling costs of all governmental programs.
   c. The increasing disparity of wealth and the inequalities of educational opportunity as a result of these disparities.
   d. The competative struggle for the taxpayers' dollar (local government, state government, federal government).
   e. The increasing costs resulting from a liberalization of policies pertaining to children attending private and parochial schools.
   f. The rapidly expanding cost to the state for technical and higher education.

THE GREAT PLAINS SCHOOL DISTRICT ORGANIZATION PROJECT

The problem as outlined above, with its broad implications for comprehensive educational opportunities for all pupils, was recognized by the four states who entered into a compact for a study and an action program on school district organization. In this effort they joined some 20 other states in the nation which have active programs for the improvement of school district organization, although this is the first and only interstate Title V project in this field.

Relevant information pertaining to the four state study includes the following:

Participating states: Iowa, Missouri, Nebraska, South Dakota.

Inclusive dates of the study: March 18, 1966 to June 30, 1968.

Financial sponsorship: Title V, Section 505, P.L. 89–10, Special Project Grant under the Elementary and Secondary Education Act of 1965.

Steering Committee:

Iowa—David Gilliland, Reorganization Consultant, State Department of Education

Missouri—Kenneth Kirchner, Assistant Commissioner, State Dept. of Education

Nebraska—Floyd A. Miller, Commissioner of Education, State Dept. of Education

South Dakota—James C. Schooler, Assistant Superintendent, State Dept. of Education

Staff:

Iowa—Ellis G. Hanson, State Director

Missouri—Arthur L. Summers, State Director

Nebraska—1966–67 Russell Harrach, Director
1967–68 Roger Farrar, Roger Hanson, William Schroeder, Co-Directors

South Dakota—Earl G. Boxa, State Director

Project—Ralph D. Purdy, Project Director

Sponsoring state: Nebraska, The State Department of Education.

Purpose[1]:

1. To improve the State Departments of Education.
2. To assist in resolving some of the major problems of State Departments of Education, including, but not limited to the following:
   a. Bringing about an awareness of need for school district organization.
   b. Clarifying the role of professional and lay organizations in school district organization.
   c. To develop guidelines for school district organization.
   d. To pool the resources of the several states in making a joint attack upon a common problem.

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[1] See Appendix 1 for a more complete listing of purposes.

Activities[2]:

1. Identification, analysis and interpretation of research on school district organization.
2. Identifying programs and services of quality, with efficiency and economy of operation.
3. Dissemination of information on school district organization.
4. Planning for a systematic follow-up with recently organized school districts.
5. Holding of state and regional conferences on school district organization.

A COMMITMENT TO EDUCATION

Education a State Responsibility: Education is a function and responsibility of the state. The inclusion of an article in the constitution accepting this responsibility was one of the requirements for admission into the Union States, and education has been a state responsibility from the creation of the state to the present time.

Responsibility for All: Since education is a function of the state, the state has the responsibility for guaranteeing an educational program that will meet the educational needs of all students living in its boundaries. The state, then, must define what these needs are, establish the programs and services required to meet these needs, and determine the quality of the programs to be maintained, the financial level at which they shall be supported, and the organizational level at which they will be administered.

Meeting the educational needs of all students implies that this responsibility shall be met regardless of the geographical location of any pupil, or of his socioeconomic status. Every pupil of the state, regardless of his parentage, his background or his economic status, has an inalienable right to education at public expenses, and the guaranteeing of that right is an obligation of the state.

Equitable Opportunity for All: Education as a state responsibility requires that provision be made for equitable opportunities for all pupils. "Equitable" opportunity isn't "equal" opportunity, nor is it the "same" opportunity. Rather, it requires "justness" and "fairness" of opportunity in relation to the respective needs and potential of each and every child. Thus, if the child is exceptionally talented, if he has learning difficulties, if he has physical or emotional problems, or if he has special interests and abilities, an equitable educational opportunity requires a program offering designed to help each and everyone to become a worthy person, to become a contributor to the community and society of which he is a part, and to become an effective participant in the business and industrial development of the state and nation.

A Commitment to Boys and Girls: All of the above is a commitment to boys and girls. The strength of our communities, of our state, and of our nation rests in our youth. Each one is important, his respective needs must be satisfactorily provided for, regardless of where he lives or of his socioeconomic status. As provided in the constitution of each state, the guaranteeing of these rights and privileges to each and everyone is a responsibility of the state, and that these opportunities be equitable in relation to the respective needs of each one.

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[2] A more complete listing of activities is to be found in Appendix 2.

SOME BELIEFS ABOUT PLANNING IN AND FOR EDUCATION

1. The people want good educational opportunities for their children.
2. People interested in or affected by a proposed policy should have the opportunity to share in and to contribute to the development of that policy.
3. Constructive change occurs when there is an understanding of all the facts and information that can be provided on the problem, and when there is a desire to seek improvement.
4. Faith and confidence can be placed in the judgment of knowledgeable people (lay and professional).
5. Leadership, in major part, is providing the opportunity for:
    a. personnel with specialized training and experience to contribute their understandings, their judgments, and their insights upon a given problem as it relates to their field of specialization,
    b. people affected by or interested in a program or policy to study, analyze and evaluate the contributions of specialized people in a given area as it relates to the problem or issue being studied, and
    c. people in executive, legislative and policy making positions to be knowledgeable about, to evaluate and to act upon the best information available as a result of (a) and (b) above.
6. Constructive change takes place as a product of the involvement of people as indicated above. Thinking through a problem, planning together concerning that problem, and initiating cooperative action is a part of the process essential for improvement in education. It is democracy in action.

BASIS FOR PLANNING

Planning the organization or structure for education is like the designing of a house. Before the blueprint can be drawn, careful consideration must be given to what you want and need in the house. For example, how many bedrooms will be needed? Is a family room desirable? A recreation room? A living room? What is the desired size of each room? How much closet space is needed, and where should it be located? What is the desired relationship between rooms? How should they be connected? And, above all, just what do you, the owner, want in a house that will help it to become the home that you have always desired, and which is structured to satisfy both existing and projected future needs. All of this must be done within the financial ability of the home-owner.

Planning the structure for education or school district organization is just like planning the house. Each parent should give consideration to what is needed and wanted for his sons and daughters so that they may become worthy members of their communities, or of the communities to which they may move. Each and every citizen should give thought to the expanding educational needs required for youth to become economically productive in a world vastly different from that of a generation ago. Furthermore, the major problem of learning how to live and work together at peace and for the welfare of the immediate community in which they live, in the state, in the nation, and in the world today is an ever present need to be met.

The house being built today is vastly different from those constructed one and two generations ago. Science and technology have created new conveniences which we, the people, have come to accept as essential in the home in which we want to live. Similarly, science and technology have created new educational needs to be met, new kinds of job opportunities with new skills and abilities for success or competence as a worker in this new position. Likewise, new programs have become essential, such as vocational education to prepare youth with salable skills in this new world of work, thus enabling them to be competitive for job placement wherever they may seek employment.

The designing of the structure for education must, therefore, be determined in relation to three broad areas, including:

1. The needs which can and should be met in the public schools of the state must be identified. As stated above, needs today are being identified at six different levels or classifications. These are at the federal, state and local levels; and, the needs considered to be essential by the pupils, by our society, and by business and industry. The identification of needs to be met is the first step to be taken in planning a structure through which they may be realized.
2. Programs must be designed to meet the identified needs. Whatever the need may be, a program must be developed to fulfill that need. This is true, whether the need is to prepare for admission to a college or a university, to prepare for a vocation, to prepare for intelligent citizenship, or to meet special needs of the handicapped. Programs scientifically designed to meet identified needs is the second major step to be taken.
3. Services must be provided which will support the programs which have been designed to meet the needs. Among other things this includes supervisory services, statistical accounting for pupils, staff and business management, remedial services to pupils, and the provision of the facilities essential to make these services function and practical.

When the needs have been identified, and the programs and services considered to be essential for the meeting of these needs have been determined, consideration can then be given to the establishment of structure (school district organization) which will provide these programs and services at an acceptable level of quality or excellence, with efficiency and economy of operation.

RELATIONSHIP TO ORGANIZATIONAL FACTORS

The designing of a structure for education has followed many patterns. The patterns of the past are under critical examination as a result of new needs to be met by the public schools, and new and more costly programs which must be provided to meet these needs.

It is becoming increasingly apparent that district organization must be determined in relation to the programs and services which it can provide with efficiency and economy, and at the desired level of quality. For example, the state may be the district for schools for the deaf and the blind. But only one state, Hawaii, has adopted the state as the district for all programs and services.

One criterion may be important. Whatever the program, whatever the service, it should be delegated to a subdistrict which can provide that program and service at a high level of quality, with efficiency of organization and with an economical expenditure of the taxpayers' dollar. Therefore, consideration needs to be given to the possible subdistrict organizations within the state which can achieve this objective. Five such districts, including the state will be suggested for consideration.

Attendance Center: Most programs and services can be provided at the attendance center. For example, some vocational educational courses can be offered in the high school attendance center. However, very few high school attendance centers can provide comprehensive vocational educational programs as conceived to be needed today. Certain activities in a good guidance program must be carried on within the attendance center. Likewise, each and every program, each and every service has certain standards which should be met. Those which can be provided at an acceptable level of excellence, with efficiency and economy, should be provided in the attendance center.

Administrative District: The administrative district may be composed of one, two, or more attendance centers. There are certain programs and certain services which can and should be provided by the administrative district which cannot be provided at an acceptable level of quality, with efficiency and economy, at the attendance center.

Intermediate Unit: The expanding program and service needs today have caused many states to explore the advantages of an intermediate administrative and/or service unit which serves several administrative districts. In many states, these have become multi-county in order to provide the desired programs and services at a reasonable and justifiable cost to the local and state taxpayer.

Regional Organization: Some professional educators are of the belief that a regional structure of some kind is needed. For example, the public school leaders in curriculum in one state held the belief that six to eight regional organizations were needed in order to optimumally provide and to coordinate curriculum research and development in the state. Each program, each service, may have a need for some form of regional organization.

The State: The state is ultimately responsible for education at any level within the state. This means that the state should be the district for some programs and services. Also, it means that the state has the responsibility for guaranteeing an equitable, efficient, and economical educational opportunity for all children within a substructure of local school district organization.

INVITATION TO PLANNING

Several areas of structure have been identified above. The challenge at this point is for the professional educators, through their respective state associations (administrators, school business officials, program and curriculum areas, and others) to provide professional leadership at the level of educational statesmanship for the identification and determination of what is needed and where in the educational structure it is needed in order to optimally achieve the objectives and goals of the area which they represent. THE INVITATION IS EXTENDED TO ANY AND ALL SUCH ASSOCIATIONS, ORGANIZATIONS OR INSTITUTIONS TO CONTRIBUTE TO THIS PLANNING FOR EDUCATION IN THE STATE.

There are several ways by which a professional association, or an individual, may contribute to this study. These include the following:

1. Develop a statement of position or belief about the needs, the program, the services, and the structural organization considered to be desirable for the program or service area represented by the organization. Such statement should present—
   a. The best in the research field on this topic.
   b. An analysis of the literature in this field.
   c. The best professional judgment of the members, either of a committee of the organization, the executive committee, or of the membership.

   If the statement is at the level of educational statesmanship, it will meet the following tests:
      (1) It will have support of noted and respected leaders in the field who are not members of the association.
      (2) It will convey with understanding and appreciation the ideas contained in the report to other committees, to the administrators of the state, to the State Board of Education, and to members of the legislature.
      (3) If it does not meet the above tests, one of two things may need attention. First, the position paper may need to be revised and redrafted in plan and content; or, second, the position paper may be valid, but further consideration needs to be given to interpretation and communication with understanding by those who are not members of the professional area being presented.
2. Appoint a committee, or use the Executive Committee of the Association, to react to the findings and to the reports of the Project Staff.
3. Participate in some advisory capacity as may be appropriate to the Association and to the Project Staff.

MINIMUM–OPTIMUM–MAXIMUM

For many years, many states have established standards on the basis of "minimums," which were basically designed for the typical school. As a result, districts which organized on the basis of these minimum standards were forced to reorganize as the standards were raised, and as new and expanding needs to be met required a different kind of structure in order that the program or service could be provided with efficiency and economy.

If the needs of all boys and girls are to be met which will enable them to benefit by the opportunities that exist for them today in the college, in the university, or in the world of work, consideration must be given to the desirable or optimum program or service. What should the program be according to the best professional judgment of the educational leaders in the state? According to the judgment of lay personnel? Once this has been determined, then consideration can be given to "minimum" standards, or those levels which the program, the curriculum, the educational service should not go in order to acceptably meet the needs of the boys and girls.

In like manner, consideration may need to be given to the problem, "When do you become too big?" Is there a point beyond which structure, organization, or size should not go for achievement of the desired objectives? Admittedly, this is a very nebulous topic, but there are evidences in several parts of the country that increased attention should and must be given to this problem. As the professional leaders of the state contribute their best judgment of the problems as outlined above, they may wish to give consideration to the factor of "maximum."

The three terms may be interpreted as follows:

Minimum:	the lowest level or conditions for growth acceptable in providing programs and/or services at an acceptable level of adequacy or quality, with efficiency and economy.
Optimum:	"The most favorable condition for growth."—Webster. "Optimum" refers to a balance of all factors (size, adequacy, quality, efficiency, economy) which provides the most desirable conditions for educational growth and development in the state.
Maximum:	A level or conditions for growth beyond which the values attained may be increasingly subject to question.

UTILIZATION OF REPORTS

Position papers and reaction reports will be of significant value to many people. In order to facilitate this utilization, the following plan will be followed:

1. All reports received will be reproduced as submitted. Each will be accompanied with a one-two page summary or outline of the contents of the paper.

2. Distribution of each report will be made to:
   - a. Other committees within the state.
   - b. Committee members working on the same topic in the other three states.
   - c. Advisory committees to the project.
   - d. Division or Department Chairman, the State Department of Education.
   - e. The State Board of Education.
   - f. Interested members of the legislature.
3. The Project Staff will accept the responsibility for attempting to develop guidelines for school district organization which will represent a pattern of relationships for and between the several program and service areas, and for the presentation of such guidelines for review, analysis, and appropriate modification by an advisory committee or other representative group.

SUMMARY STATEMENT

Planning for school district organization is so complicated and so involved that no one person, or even a small group of persons, can possibly have all of the desired information essential for the development of appropriate guidelines to meet all of the program and educational service requirements. The assistance of specialists in the field, those persons in positions of professional leadership within these respective areas, and who have responsibilities in State Departments of Education, in public schools, in professional associations, and in colleges and universities is essential for the appropriate development of the Project. It is these people who possess a full and appreciative understanding of available research in each of the several areas. They are knowledgeable concerning the contributions in the literature on this topic, and are in a position to assess the valued judgment of knowledgeable people within these programs and services concerning what is desired and what is essential for the operation and maintenance of high quality programs with efficiency and economy.

This is an opportunity for the professional educator to assist in the development of a professional statement concerning the needs to be met, the programs and services required to meet these needs, and to propose essential considerations for the structure and organization of education to efficiently and economically provide these programs and services for all children, regardless of where they live in the state, or of their socioeconomic status in the community of which they are a part.

In a like manner, many lay, business, industrial and labor organizations have a significant contribution to make. Some have an overall interest in the total project. Others have an important contribution to make in the identification of needs. For example, business and industry are the employers of the finished product of the public school system. In working with these new employees, they are in a position to assess the strengths and limitations of the graduates of the public schools in relation to their ability to assume a responsible position and to contribute constructively to the business or industry. Also, they are in a position to anticipate changing needs, the appropriate adaptation of programs to meet these needs, and through this identification to lesson the gap between recognition of need and the implementation of programs to meet the need.

PROFESSIONAL AND LAY PERSONNEL, INDIVIDUALLY OR THROUGH THEIR RESPECTIVE ASSOCIATIONS AND ORGANIZATIONS, ARE INVITED TO SHARE IN THE DEVELOPMENT OF CRITERIA TO BE USED IN THE DESIGNING OF GUIDELINES FOR SCHOOL DISTRICT ORGANIZATION.

PART I

EDUCATIONAL NEEDS AND QUALITY IN EDUCATION

NEEDS TO BE MET BY THE PUBLIC SCHOOL SYSTEM

Ralph D. Purdy
Project Director

Needs Are Defined by:

1. The federal government
    - –National defense
    - –The general welfare
    - –Social change
    - –Research and development
2. State governments
    - –An enlightened citizenry
    - –Community and social development
    - –Economic development
    - –Individual development, as an individual and as a member of society
3. Local government
    - –Business and industry
    - –Social and ethnic groups
    - –Needs of a local nature, defined at the local level
4. Society
    - –Cultural heritage
    - –Values and value systems
    - –Development and improvement
5. Labor, business, and industry
    - –Values and value systems
    - –Habits and attitudes
    - –Skills: intellectual and manual
    - –Ability in communication
    - –The productive use of knowledge
6. The individual student
    - –Personal interests and needs to be met
    - –Values and value systems
    - –Personal needs as an individual and as a member of a group, and as a member of the larger community

Ten Clues to Identification of Needs

1. The mobility of the population, with the graduates of each school needing vocational salability in job competition with the graduates from all high schools.
2. The process of urbanization, with the in-migrants needing vocational employability and the capacity for urban living.

3. Cultural and economic deprivation, with the needs of the deprived giving direction to educational programs and services.
4. Scientific discoveries and technological development which have provided innumerable new products and opened up rapidly expanding job opportunities necessitating greatly expanded training programs.
5. An age of specialization, with new patterns of employment opportunities presenting new challenges to educational programming.
6. Vocational education and the world of work, necessitating broadened program opportunities in preparation for entry into the world of work.
7. Breadth of vocational opportunities, necessitating a delineation of educational effort into the general field, the broad vocational field, and selective areas of specialization.
8. Interdependence, in which we are one people, each dependent upon the other.
9. The process of change, with the escalating advancement of scientific and technological development, necessitating the acquisition of a personal and a social sense of security and well-being within the process of change itself.
10. The value system, which gives stability and direction to individual and group activities, and to the identification and determination of individual and group needs to be met by the public school system.

Needs to be Met

1. The need to acquire knowledge and understandings
    - –of themselves
    - –of themselves in relation to others
    - –of the socioeconomic world about them
    - –of our culture, our way of life
    - –of our culture in relation to the ways of life of many peoples and many cultures

   Related programs include, but are not limited to: literature, social studies, history, science, humanities, etc.
2. Need to develop skills
    - –as a means of acquiring knowledge and understandings
    - –as a means for economic survival–salable skills, intellectual or manual, or both.

   Related programs include, but are not limited to: reading, mathematics, science, vocational education, etc.
3. Need to develop a sense of values which become basic to individual and group beliefs, based upon values, which give meaning and direction to
    a. Knowledge to be acquired.
    b. Skills to be developed.
    c. The application and utilization of knowledge and skills that contribute to making life meaningful, constructive, and productive within our culture and value system.

4. Need to acquire and/or to develop the knowledge, understandings, beliefs, and values essential to learning how to live, to work, and to play with others—first, with himself, then with his parents, his playmates, and his neighbors; with people in his community, in the state, in the nation; and with all peoples of the world.
5. Need to develop the ability to theorize and to conceptualize, and to relate constructively such conceptualization to reality. Emphasis is placed on (1) skill acquisition (reading, mathematics, vocational education, etc.); (2) subject matter (literature, social studies, etc.); (3) conceptual and process-oriented studies (data collecting, estimating, problem solving); and (4) the interrelating and coordination of each of the above for meaningful educational experiences related to the life experiences of the individual. It must be emphasized that the above does not purport to continue the historical separateness of specific content areas. It is used in this context only for illustrative purposes within a generally understood and accepted organizational framework. New and significant research data are pointing toward the interrelated and integrated aspects of knowledge as opposed to fragmentation through segmentation.
6. The need to correct and to improve physical and metal defects and/or limitations.
7. The need to develop the potentials of each and every pupil to the highest level of performance possible for that individual person.

EDUCATIONAL NEEDS IN IOWA

THE CLASSROOM TEACHER'S CONCEPT OF AN OPTIMUM EDUCATION SITUATION

David A. Grosland
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Chairman, Iowa Association of Classroom Teachers Committee

The purpose of this position paper, commissioned by the Great Plains School District Organization Project, is to describe the Iowa classroom teacher's concept of the optimum education situation and to suggest means of attaining it. In writing the paper, I have relied largely upon the empirical judgments of the IACT Great Plains Committee and an additional group of classroom teachers who were kind enough to contribute their time, knowledge, and judgments.

Education's main purpose, we feel, is to prepare youth for the society in which they will live. We feel, further, that the fundamental necessity for a successful life in a changing society is the ability to be flexible. And we feel that this ability comes as a part of the ability to think, that is, to compare, relate, and associate in a rational, logical, and analytical manner the situations encountered. We believe that there are a limited number of fundamentals, in general and in each subject area, and that the learning and application of these fundamentals is the basis of the thought process.

We recognize that interest plays an important part in the effectiveness of the educative process. Therefore, if we teachers are to be fully effective in developing each individual's talents, we must demonstrate that education is relevant—immediate, vital, and practical. When the student sees the relevancy of an area, he will usually become interested in it and he will become more efficient in what we are helping him to learn. But we must at all times be careful to relate what we are teaching to each individual's interests, experiences, and abilities so that he will remain aware of education's relevance to him.

How, then, can we demonstrate individual relevance? The answer lies in seven major areas of the education situation: administration, classes, curriculum, media, physical environment, services, and teachers. But we must also remember that these seven areas are all dependent upon the structural organization of the school system; some are dependent upon community structure, some on area structure, some on state structure, and several on a combination of two or more structures.

We feel that administration, for example, has several levels of function. The function involving formation of general policy, efficiency, and some program coordination might be carried on at an area, or in some respects even state level. The function more directly connected wiht individualization of instruction, on the other hand, should be carried out at a community or attendance center level. Particulars of class size and number should also be dealt with on a community or attendance center level.

Certain aspects of curriculum, such as levels, offerings, and research, might be determined most efficiently at an area or state level, but other aspects, such as the particular number of classes in a subject, or the method of presentation, would depend on a community or attendance center decision.

Media centers should probably be operative on all levels. We feel that there are certain functions of media centers that are needed on the local attendance center level and some that are neither efficient nor necessary on this level, but are both efficient and necessary on the area and state levels.

On the other hand, we recognize that the nature of physical environment must be a local decision, based on the needs of the local curriculum, teachers, and students. Although very broad matters, such as location of attendance centers for academic or vocational instruction, may only be practical on a more remote analysis, the area within the attendance center that is required for classrooms, offiices, media centers, and such can only be determined by the attendance center's requirements.

We are certain that educational services such as guidance counseling, physiological services, auxiliary personnel, and, perhaps, psychological services should be offered on a local level, although we recognize that others, such as some types of special education, are practical only at a higher level, i.e., area or state.

We feel that the local attendance center should be most directly involved with the majority of teacher relationships, such as the hiring and assigning of well-qualified personnel to their areas of specialty, and in-service education and guidance to ensure innovation and relevancy of procedure as well as content. However, we also realize that the services of certain specialists within the teaching staff would be most valuably utilized on an intermediate level. And we can even conceive of a body of specialist teachers concerned with research and consultation on a statewide basis. Again, the structural level of involvement should be determined by function.

In short, we feel that there should be a statewide assessment of structural organization within education. This, we feel, will probably result in a structural readjustment that delegates responsibility and coordinates the educational facilities in accordance with the needs of all of Iowa's youth.

A SEARCH FOR QUALITY IN EDUCATION

Alfred Schwartz, Dean
College of Education
Drake University

Quality Defined

1. A characteristic property or attribute; high grade.
   Peculiar and essential character; a degree of excellence. (Webster)
2. When we discuss quality education, we are attempting to describe what happens to an individual as a result of attending a school and participating in school-directed activities.
3. The quality of education will be influenced strongly by:
   —The quality of family and community life from which the students come.
   —The types of television programs watched and the extent to which TV is viewed.
   —The radio programs, movies, magazines, and newspapers to which the students are exposed.
   —The ethical and religious convictions which are expressed at home and at the churches.
   —The many other community factors which seek to influence students, parents, and teachers.
4. Quality is not an absolute value.
5. When quality education is present, something positive is happening to boys and girls, young men and women, and adults.

Quality and Individuals

1. Are capable of using their talents and abilities to their maximum potential.
2. Seek to continue their educational development.
3. Are able to participate actively and positively in the world of work.
4. Can engage in problem solving at the abstract and the concrete levels.
5. Are developing positive patterns of values which sustain them as individuals and as members of society.

Keys to Quality Education

1. Professional staff with high qualifications are employed and are given the opportunity to perform their duties.
2. Educational programs are designed to maximize the educational attainments of all the people in the community.
3. Specialized personnel and instructional services are available for all students.

4. Modern instructional media are available to all teachers and provisions for their effective and efficient use are assured.
5. Experimentation, innovation, and the process of change are readily apparent.
6. Systematic and organized evaluation and research are conducted continuously and the findings are used to improve programs for people.
7. Supporting services and personnel are available to maintain an effective and efficient system.
8. Physical facilities conducive to a stimulating educational environment are available.
9. Community support and understanding are readily evident.
10. Adequate financial support to provide for the essential ingredients of quality education is made available.

The Optimum Secondary School

The optimum secondary school will have the following:

A curriculum that includes:

English, language arts, and literature.
Two or more foreign languages.
Vocational and/or non-vocational
—Agriculture: agricultural production, mechanics, management, and leadership.
—Home Economics: personal and family relationships, home management, consumer competence and responsibility, care and guidance of children, selection and care of the house and its furnishings, clothing for individuals of the family, and food for the family.
—Business and office education: bookkeeping, clerical, office machines, data processing, secretarial, and stenographic.
—Distributive education: retailing, wholesaling, service.
—Trade and industrial education: machine trades, auto mechanics, basic electricity and electronics, mechanical drafting, printing, welding, sheet metal, bricklaying, carpentry, plumbing, and cosmetology.
Physical education and health
Drama and speech
Mathematics
Sciences
Social studies
Creative writing
Music

An organization which will provide stimulation for self-learning.
Multiple activities instructional materials centers.
Provision for individualized learning and group learning technologies.
Well-trained, professionally oriented teachers.
An in-service teacher training program as a continuous process.
A corps of skilled specialists to assist the teachers, including but not limited to the following services: psychological, social, health, guidance, in-

structional materials-learning, field experience, laboratory learning, handicapped, gifted, culturally developed, and many others.

Housing and facilities conducive to an optimum learning environment.

Extensive teaching-learning tools and materials.

The capacity to bring about needed change.

Summary Statement

The measurement of quality is not in terms of buildings, motion picture projectors, teacher aides, or home room coffees, but the performance of the product. While there appears to be substantial evidence that the level of quality of a school or district is directly related to the extent to which the conditions described earlier are present, the burden of proof pertaining to the level of quality is found in performance measures. It remains for the professional personnel to develop imaginative approaches to evaluate the quality of the school system.

Selected Quotes

"Quality is a term used to suggest a high level of excellence, whether it be a man-made product, a living plant developed by the forces of nature, or the efforts of an individual or an institution."

"Concern for education in the quality school begins with the young and extends throughout a lifetime."

"Within the quality school a recognition exists that the basis which can be used by individuals to enter the world of work must be established early."

"The quality school seeks to promote the dignity of human labor in all areas."

"The quality school is an educational laboratory where in classrooms, shops, art studios, gymnasiums, and auditoriums can be seen efforts to encourage individuals to solve mundane as well as major problems."

"A school can have the designation of quality only when its students have acquired a positive appreciation for the values of our society and are able to express their beliefs in appropriate action."

"The measurement of quality is not in terms of buildings, motion picture projectors, teacher aides, or homeroom coffees, but the performance of the product."

"QUALITY" AS DEFINED IN THE GHETTOS[1]

Testimony by residents of the ghettos in the nation's cities described conditions and practices which they believed affected the quality of education which was provided to their children. The following lists those conditions and practices which were of particular significance to them:

1. Overcrowded conditions.
   "One teacher cannot effectively teach a group of 40 to 47 children."
2. Poor physical conditions.
3. Lack of facilities.
   "One or two microscopes is inadequate for 2100 children."
4. Textbooks should be up-to-date.
   "Textbooks used by parents 30 years before are inadequate."
5. If textbook material is to be meaningful, it must be related to the insights and understandings of the child.
   "We don't have anything in this book concerning inner city children. If they didn't see the police with a horse, they wouldn't know what it was, and the teachers are all white and everything. So they don't know anything about the suburbs. They are reading something opposite from their education." "We look for others like ourselves in these history books," whether it be Mexican or any other minority group.
6. Non-tenure teachers, or teachers who stay long enough to get started and then move out.
7. Non-tenure principals, or those who are there such a short time that they cannot develop and implement a consistent, coordinated, and planned program to meet the needs of that particular school.
8. Lower standards for achievement in the ghetto schools negate quality.
9. Lower standards have a negative effect on student motivation and achievement.
10. Many people have the attitude that Negro schools are poor schools.
11. Limited or lack of employment opportunities after school negates effort for achievement and quality on the part of students. "What is the use for me to try to accomplish something? When I get out, I am not going to be able to get a job anyway."
12. The attitude of teachers can be demoralizing to students.
13. The lack of opportunity for job placement has a direct bearing on the students' attitude and efforts for achievement.
14. Many job training programs are limited or fail because of lack of equipment.

15. **The quality of job training programs may be seriously limited due to the failure of communication between school program planners and employers and job placement services, such as the State Employment Service.**
16. **Barriers to job placement (and thereby to the quality of preparation programs, student attitudes, and student achievement) include the following (pp. 42-72):**
    a. **Age limitations.**
    b. **Wage limitations.**
    c. **Academic requirements.**
    d. **Prejudice.**
    e. **Exclusive union practices.**
    f. **Nepotism.**
    g. **Lack of information concerning apprenticeship programs among minority groups.**
    h. **Movement of jobs to the suburbs.**
    i. **Lack of housing in the suburbs for minority groups.**
    j. **Lack of opportunity for the children to see, to understand, and to appreciate living conditions outside the ghetto.**
    k. **"As a white parent, I feel, that if my child grows up with a prejudiced, bigoted, narrow mind, and knows nothing about those who differ from him in any way, he isn't really fully educated, and when he goes out into the world . . . he will associate with people of many diferent races, then he will not be prepared to really relate to these people."**

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[1] From *A Time to Listen . . . A Time to Act: Voices from the ghettos of the Nation's cities* (United States Commission on Civil Rights: Washington, D.C., 1967), p. 42-72.

IMPROVING THE QUALITY OF EDUCATION IN THE RURAL AREAS

M. L. Cushman, Dean
School of Education
The University of North Dakota[1]

"Continue to accelerate the local school district reorganization movement."

"Make funds available for the construction of new school buildings."

"Provide better preparation for a sufficient number of rural teachers and administrators."

"Find ways to make the large number of small high schools more effective; school district reorganization in itself is not the total answer."

"Bring to light the need for more equitable funding for current expenses for rural schools and for those small city schools attended largely by many rural young people. State aid formulas do not compensate rural school districts sufficiently for the two most significant excess costs—sparsity and poverty."

"Support the vast expansion of intermediate administrative units with sufficient personnel and financial resources to provide those kinds of services for which the local district, even when adequately reorganized, is still too small and for which the state is usually too remote."

"Expand vocational education in trades and industries, business and commercial education, distributive occupations, industrial arts, home economics, and agriculture."

"Utilize the total environmental resources in special curriculum adjustments and instructional procedures in elementary and secondary schools."

"There are few things inherent in small schools that make them necessarily bad; it is simply that they usually are, and they don't need to be."

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[1] Excerpts from an address delivered at an October 23-26, 1967, conference, The National Outlook Conference on Rural Youth. The above excerpts were taken from a digest of Dean Cushman's address and reported in *Rural Education News*, Volume 20, Number 1 (March, 1968), Department of Rural Education of the NEA, Washington, D.C.

PART II

DEMOGRAPHIC FACTORS
AND
SCHOOL DISTRICT ORGANIZATION

PEOPLE—PLACES—PERSPECTIVES: THE GREAT PLAINS STATES

(A FOUR-STATE DEMOGRAPHIC STUDY)

Ellis G. Hanson, Iowa Director Great Plains School Organization Project
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NATIONAL POPULATION TRENDS:

1. **Urbanization:** In 1800, 5 percent of U.S. population resided in urban areas.
   1960, 70 percent of U.S. population resided in urban areas.
   1980, 80 percent will reside in urban areas.
2. **Central city-suburban distribution:** The decline of central cities is manifested in massive out-migration and rapidly changing internal composition. Extensive movement of white population from central cities to the suburban areas and the sizeable in-migration of non-whites to central cities is expected to continue. This will result in increased concentrations of the lower socioeconomic whites and Negroes in central cities, and continued expansion of suburban fringes with predominantly middle class and upper middle class white populations.
3. **Migratory patterns:** The massive movement of people within and among states is expected to continue. Rural populations are expected to decline further. The most mobile segment of the population will continue to be the 18-45 age group. They will move from small towns and rural areas to metropolitan areas, and there will also be substantial movement of this age segment between major metropolitan areas.
4. **Changing age composition:** The 18-34 group will increase by 57 percent during the next 25 years. From 1950-1965 the 4-17 and 5-13 age groups increased by 67 percent and 61 percent respectively. During the next 15 years, 1965-1980, they will increase, but by only 17 percent and 11 percent respectively.
5. **Regional distribution:** The greatest increases, percentage-wise, will be recorded in the far West and Southwest, the Gulf Coast area, the Great Lakes area, and in the eastern metropolitan complex. Population growth in midwestern states will range from 5 to 10 percent below anticipated national growth rates.

PERSPECTIVES FOR THE GREAT PLAINS STATES:

1. **General growth:** The U.S. population is expected to increase 18.3 percent by 1985. The population of the four Plains states will increase at rates substantially below the national rate. Expected growth will be: Iowa, 9.7 percent; Missouri, 13.3 percent; Nebraska, 9.1 percent; and South Dakota, 9.2 percent.

2. **Rural-urban distribution:** By 1980 the percentage of urban population in each state is expected to be: Iowa, 70 percent; Missouri, 80 percent; Nebraska, 70 percent; and South Dakota, 45 percent. Approximately 75 percent of the total four-state population will be residing in cities that presently possess populations in excess of 50,000.
3. **Community survival:** The smaller communities, with a population of 2,500 or less, within Iowa, Missouri, Nebraska, and South Dakota will encounter increasing difficulty in remaining viable, cohesive community centers. In the western portions of Nebraska and South Dakota, communities of less than 1,500 will encounter difficulties in surviving but will probably persist as minimum convenience centers providing a very limited range of services to a relatively large geographic area.
4. **Out-migration:** All but 33 of the 374 counties included in the four midwestern states experienced population losses between 1950 and 1960. The movement of people out of all but the larger urban counties is expected to continue.

EMERGING ECONOMIC AREA CONCEPTS:

Within the Great Plains states increasing attention is being directed to the identification and utilization of enlarged geographic areas for economic and social planning. Within Iowa, Missouri, Nebraska, and South Dakota, economists and sociologists have identified sizeable geographic areas which possess a commonality of characteristic and definite elements of cohesiveness. Various names have been attached to these units but the general terminology presently in use is:

Iowa:	Functional Economic Areas
Nebraska:	Economic Areas
Missouri:	Growth Centers or Traffic Flow Communities
South Dakota:	Trade Area Communities

Characteristics generally employed in identifying enlarged communities are:

1. Possession of a hierarchy of communities ranging from hamlets to at least one central city, generally with a population of 50,000 or more.
2. A pattern of distribution of essential services identifiable among the communities of varying size within each area.
3. Common travel patterns identifiable when considering employment, recreation, health, welfare, communications, and acquisition of essential goods and services.
4. The location and distribution of industrial resources which provided employment opportunities within the areas.
5. Time-distance factors applied in each state in identifying areas.
6. Patterns of road networks and the resulting travel patterns and habits.

These enlarged areas appear to possess great utility in educational planning. Iowa has progressed further than any other state in the wide utilization of economic areas for multiple educational planning. The Functional Economic Areas of Iowa presently constitute the approximate boundaries for area community colleges and vocational-technical schools and emerging Regional Educational Service Agencies (intermediate units), and have been designated by the Governor as Regional Government Planning Areas.

Some of the additional applications of economic-areas use within the four states are mental health planning, medical planning areas, extension services, state recreational planning, conservation districts, highway patrol areas, vocational rehabilitation planning, soil conservation districts, development commission activities, and many additional uses.

IMPLICATIONS OF DEMOGRAPHIC CHANGE FOR EDUCATIONAL PLANNING:

1. **The criteria of a local community or a group of interrelated local communities as the basis of a school district is obsolete and indefensible.** The past and anticipated movement of people within the Midwest indicates that there is little hope for most small communities to survive as dynamic cohesive social and economic entities. If local school district organization is to be compatible with other facets of community development, the individuals and groups responsible for organizing schools must look beyond the residentiary activities and interests of the local community. The increased visits of social, economic, governmental, and cultural environments must be employed in the delineation of enlarged geographic areas for local school districts.
2. **Local school districts should be organized around city centers with populations of at least 2,500 to 5,000.** The community which possesses the greatest potential for providing an adequate pupil population base over an extended period of time is one organized around a city center of at least 5,000 people. Local school districts should, therefore, be organized around city centers with at least 5,000 population within the corporate limits. Few communities of less than 2,500 possess the potential for stability or growth. The minimum size community around which a local school district should be formed is one with a city center of at least 2,500 within the corporate limits.
3. **All areas of each state should be in a K-12 school district.** Every citizen, regardless of his residence, age, or dependency status, profits from a state's educational system and should be a full participating and contributing member of the system.
4. **Emerging demographic changes demand that future school district reorganization be based upon comprehensive statewide planning.** Historically, the basic responsibility for local district organization has been legislatively delegated to county reorganization commissions, county boards of education, or some other group operating at the county level. This has resulted in an incredible maze of jagged, irregular, and illogically conceived local school districts—districts created by the selfishness

and greed of some and the great indifference of others. Future comprehensive statewide reorganization planning should proceed through a **legislatively created school district reorganization commission** or through **a legislative mandate to the state education agency.**

5. **An enlarged and strengthened middle echelon of school government should be developed in the four midwestern states.** In most areas of the Midwest it should be possible to form local administrative districts enrolling from 4,000 to 5,000 students. Because of size limitations, these districts would be unable to provide comprehensive qualitative educational opportunities with maximum efficiency and economy. To supplement and coordinate services to enlarged local districts, this middle echelon of school government would be able to provide the articulation, coordination, and service functions the existing county units of school government cannot economically and efficiently provide.
6. **Increasing attention must be directed to the problems of urban education in the Midwest.** The 25 largest Iowa school districts presently enroll 50 percent of all the state's public school pupils. Kansas City and St. Louis metropolitan complexes enroll 45 percent of such pupils in Missouri; Omaha and Lincoln enroll approximately 50 percent of Nebraska public school students. Increasing amounts of each state's resources, both human and financial, must be diverted to urban centers.

   As urban centers have enlarged, they have developed educational systems autonomous and separate from most segments of the state education system. In many instances they operate today quite independently of the state education agency. As statewide planning emerges and increased resources are allocated to urban education, a concerted effort to realign the relationships between state education agencies and urban school systems is necessary.

THE GROWTH CENTER CONCEPT AND SCHOOL DISTRICT ORGANIZATION

Hugh Denney, Associate Professor
Regional and Community Affairs
University of Missouri

Purpose: To examine existing and potential centers of population concentration.

Principle elements: Schools, like all other social institutions, are influenced by five principle elements:

1. The number of **people** to be served in the schools.
2. The **spatial distance** that the service can satisfactorily cover.
3. The **speed of transportation** within the area.
4. The **time** allotted for movement of goods and services or the user of goods and services across this area.
5. The **technology** man has created to facilitate living.

Patterns of growth: The interaction of the above five principle elements have produced the following growth patterns:

Up to 1820–3-4 miles, or one hour's walking time by man and/or horse. (1½ to 3 miles–one-hour's walking time for small children.)
1820–1900 –6-8 miles along steamboat or railroad routes, but 3-4 mile pattern continued perpendicular to the routes.
1900–1920 –Shifting from 4 to 8 miles with introduction of the automobile, but before all-weather roads.
1920–1935 –Pattern shifting from 8 to 16 miles with the nationwide improvement in rural roads and highway system.
1935–1956 –Shifting from 16 to 32 miles with rapid development of farm-to-market roads and improved automobiles.
1956– –In sparsely settled agriculture areas a shift from the 32-mile to the 64-mile centers is in process.

(Note that in urbanized areas where population density permits closer service functions, we have a tendency to perpetuate the 3- to 4-mile shopping center patterns and high school districts characteristic of the early walking stage.)

Growth Patterns for Schools:

1. Up to 1900–School districts tended between 2 x 2-mile square patterns up to 3 x 3-mile square patterns. This was the pattern until the coming of all-weather roads and school buses.

2. 1900–1940 —a. Secondary schools concentrated in the township villages.
    b. Consolidation of nearby elementary districts into high school districts.
3. 1940– —Reorganization and consolidation of high school districts on a larger scale due to declining rural population.
4. Emerging Scale:
    a. K-6—16-mile radius in the area with lowest population density, 8 miles where enrollment permits.
    b. 7-9—32 miles in low density areas; 16 miles in Iowa, Missouri, and the eastern portions of Nebraska and South Dakota.
    c. 9-12—A maximum of 32 miles in all areas, but 16 miles wherever minimum enrollment permits.
    d. 13-14—75 miles in the western Plains; 64 miles in Iowa, Missouri, eastern Nebraska and eastern South Dakota.
    e. 13-16—128-mile radius.

Selected Quotes

"A declining population exerts less demand for a given service center and results in the discontinuance of every other previously established service center in the process of adjustment."

"The highway networks, the retail trading patterns, the job-centered services, the hospitals, and religious and other social institutions, like the schools, are being nudged into ever larger scales of district operation by declining population in rural areas."

"As we improved our transportation system, both in vehicles and in road systems, we were able to go farther in the same time for a given service."

"Community service facilities serve an area determined by the speed of transportation prevalent for that time and location."

"There is not a large enough population or adequate financial resources to support school systems at the present pattern of an eight-mile radius of service."

"Efficiency requires a pattern of interrelated attendance centers with minimum enrollments and maximum travel distances for students at each level."

"Today, a modern school requires the financial support of not only rural land and residences, but the retail, commercial, and manufacturing base which is associated with the large cities."

DEMOGRAPIC FACTORS IN MISSOURI

A METHOD FOR VISUALIZING A STATEWIDE SCHOOL REORGANIZATION PLAN

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Purpose: To aid in establishing more adequate school districts by determining the distances traveled and movements of people in given areas.

The Development of Larger School Districts:

1. The reason for considering school reorganization is to provide the best possible curriculum to all elementary and secondary students in Missouri with a minimum travel distance from their home to school consistant with maximum efficiency and economy to taxpayers.
2. It is reasonable to operate secondary schools within a maximum of a 16-mile radius for the transportation of pupils.
3. It is possible in most all parts of the state to provide a potential school enrollment of 100 pupils per grade at centers serving a 16-mile radius.
4. In urban, metropolitan, and other densely populated areas, a single large organized school district would provide a uniform tax base.

The Movement of People:

1. Growing numbers of people commute across district lines to work.
2. The accessible travel distance of people is evidence that the travel factor is no longer a barrier.

Possible Number of School Units:

1. It is reasonable to suggest approximately 268 secondary school units within 153 school districts.
2. This arrangement would require only a few districts with a minimum of 1,200 pupils each.
3. An accompanying map shows the general layout of school units (see position paper).
4. To achieve a 46 percent reduction in the number of secondary school centers would require a change in travel patterns for only 12.3 percent of the students in the state.

Evolution of School Districts:

1. Small, weak districts tend to join together, rather than to unite with the larger and stronger school districts.

2. The small town faced with school consolidation in many instances turns its back on its larger neighbor, even though there are definite advantages to consolidation with a larger town.
3. Sometimes the large neighboring school turns its back on the small town school.
4. Even with the decline in rural population, it is still possible to provide school centers of 100 pupils or more per grade throughout most of Missouri.

Transportation of Pupils:

1. In most of the state there is no area that is more than two and one-half miles from a supplementary highway.
2. Within the next three to five years, only 15 to 20 percent of the land area may be as far as two and one-half miles from a state-maintained road.
3. The percentage of children living in these land areas is much smaller than the percentage of land area.
4. Rural home development has been shifting closer to good roads, as well as locating improved roads closer to homes.

Reorganization in Urban Areas:

1. There is a need for larger school districts in the St. Louis, Kansas City, and Springfield areas.
2. The tax base needs to be broadened to include industrial wealth with the residential wealth.

A Look at Some Central Missouri Districts:

1. Some school districts, such as Herman and Montgomery City, have taken steps to form enlarged districts.
2. Some larger towns located in small land area districts have not enlarged the territory for school districting.
3. The major cities have a responsibility to be interested in and receptive to including surrounding territory into a good school district.
4. In 13 districts the schools offering about 36 units of high school credit were costing $27 per pupil less than the high school districts offering 55 units of credit.
5. The small high school district is paying close to the same price for education as the larger schools and receives less in educational programs and services.

THE MIGRATION OF YOUNG ADULTS IN SOUTH DAKOTA COUNTIES
1950 TO 1960

Marvin P. Riley
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South Dakota State University
and
James E. Pew, Graduate Student
South Dakota State University

Definition of Terms:

1. Migration: The movement of people from or into a given area during a given time period.
2. Young adult population: That segment of the population age 20-35.

Importance of the Study

1. People tend to migrate to areas experiencing greatest economic growth and to leave areas of slower economic growth or decline.
2. This age group of people are productive in at least two ways: first as the parental stock of the next generation, and second, as one of the most important sources of manpower and thus a strategic resource of a state.

Findings and Their Implications

1. South Dakota, with more than 60 percent of the population living in rural areas in 1960, has been experiencing a loss of people through out-migration.
2. Migration from South Dakota appears to be highly selective by age, with the concentration being in the young adult category.
3. Only four counties of 67 showed a net in-migration rate—Stanley, Pennington, Hughes, and Minnehaha. Possible reasons for growth could be attributed largely to federal projects—Oahe Dam construction and Ellsworth Air Force Base. Sioux Falls, the largest city in South Dakota, may have helped to attract young people.
4. These four counties, then, were not typical of South Dakota counties; the other 63 counties all lost young adults during the decade.
5. Live births for 1965 were 13,453; for 1966, 12,534; for 1967, first half, 5,471,last half estimate, 5,471, total 1967 estimate, 11,000. The trend is downward, so that in 1968 there may be as few as 10,000 live births. In the past the South Dakota average was 15,422 live resident births.
6. If this trend continues, there may be 30,000 to 40,000 fewer pupils in grades K-12 in the next 15 years than there were at South Dakota's all-time high of 188,632 in 1966-67.

LOCATION OF VOCATIONAL SCHOOLS IN SOUTH DAKOTA

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University of South Dakota

Purpose of the Study

1. The study is concerned with economic data that will be useful in determining the number of vocational schools that can be supported in South Dakota.
2. Also, it will provide some guidance in deciding where such schools could be located.

Economic Regions

1. Any geographic area that exhibits homogeneous physical and cultural characteristics may be defined and studied as a separate entity called a "region." Generally a region has a central core area which is recognizably cohesive.

General Rules for Planning Areas

1. The unit should be based upon normal trade areas.
2. The counties should be contiguous.
3. There should not be physical barriers.
4. The people should have similar interests in so far as possible.
5. The unit should be large enough in area, economic base, and population to solve its problems.
6. The unit should be large enough that the same grouping of counties can be used for more than one purpose.
7. The unit should be of an optimum size for efficient working relationships, minimum costs, and maximum returns.

Guidelines for Establishing Vocational Education School Districts

1. A population of 75,000 to 100,000.
2. A vocational school enrollment of at least 500.
3. A total of at least 15,000 students in the district.
4. Another common-sense suggestion is that no vocational school should be located more than a one hour's drive for the students.
5. Sparsely populated areas should consider residential programs, on either a high school or a post-high school basis.
6. Other basic data relative to the establishment of Vocational Educational School areas include: (1) total population, (2) income, (3) assessed valuation (Since the funds for the area's share of the school costs would probably come from a property tax, these figures are important.)

Possible Vocational School Locations

In South Dakota, with its relatively large area and sparse population, an important consideration is to locate the schools within a reasonable distance for enrollees to travel. Suggested locations are:

1. Rapid City
2. Mobridge
3. Pierre
4. Winner
5. Aberdeen
6. Watertown
7. Mitchell
8. Sioux Falls

Conclusions—These schools would provide specialized vocational training for:

1. Persons not finishing high school.
2. Persons with high school diplomas who do not desire to go to college.

PART III

THE EDUCATIONAL PROGRAM

ELEMENTARY EDUCATION AND SCHOOL DISTRICT ORGANIZATION

Rosalie W. Farley
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University of Nebraska

Each elementary school child is entitled to a high quality of education, including:

- —The opportunities available in a well-planned curriculum which balances the emphasis in the academic subject fields and is developed for learning experiences from the kindergarten through the twelfth grade.
- —A curriculum which places emphasis on the desire and tools for learning without ignoring the basic academic facts.
- —Participation in learning situations planned for large and small groups as well as individual learning activities.
- —A variety of instructional materials and aids that can challenge his curiosity and develop his potentialities.
- —The guidance of competent teachers and specialists who are capable of determining appropriate educational activities for his abilities and maturity.

The elementary school curriculum must include:

- —A language arts program, with emphasis on oral and written expression; listening; spelling; handwriting; literature; a second language.
- —A social studies program that enables the child to understand the historical developments of our nation, our form of government, our economic system, and the relationship of our nation to others in the world.
- —A science program that enables a child to know and appreciate science; to perform simple experiments; to interpret, record, and report accurately; to distinguish between truth and superstition; and to associate and apply science with daily living.
- —An arithmetic program, with emphasis on the usefulness of arithmetic and its practical and scientific applications.
- —A health, physical education, and recreation program.
- —A fine arts program in which the child learns to express himself through music, art, and language.

Provision must be made for:

- —The development of skills in oral and written communication, decision making, problem solving, creative thinking, and computations, and of competence in self-instruction and independent learning.

—The development of wholesome attitudes concerning his own dignity and worth, his role in society, his responsibilities in a democracy, and his contributions to others.

—Opportunities whereby the pupil can participate in group activities, work independently, and experience successes, and to realize that failures can become beneficial.

—Educational services, including guidance and counseling, school health services, special education, psychological and psychiatric assistance, and instructional materials centers.

An optimum program for elementary schools includes:

—A balanced, flexible, and articulated educational program from the kindergarten through the twelfth grade under the leadership of one superintendent of schools, a local board of education, and an elementary school principal.

—Those educational services which are needed by a sufficient number of students in the local elementary school to justify the expenditure.

—Arrangements for additional educational services from another attendance unit or administrative level whenever specific services are not offered locally.

—A pupil-teacher ratio of approximately 25 to 1 and arrangements for grouping students in large or small groups and for individual instruction.

—Provisions for physical facilities for library services, educational television, physical education, health services, conference room, teachers' lounge and workroom, arrangement and space for academic specialists, special education, bus transportation and lunchroom facilities when necessary, and after-school and community activities, and arrangements and facilities for individual studies and research projects by professionally prepared educators.

Optimum programs for sparsely settled areas include:

—The basic instructional program with facilities for library-audiovisual services, health services, physical education, and lunchroom activities.

—Arrangements for additional educational services from another attendance and/or administrative unit.

—A pupil-teacher ratio of 20 to 1.

Selected Quotes

"There is no justification for a limited educational program because of a limited population."

"Even in small elementary schools, the quality of education must remain on a high level under the direction of professionally qualified classroom teachers and a principal."

"When the local administrative district is too small to provide all of the needed services, some of the educational services can be secured from another local administrative district and/or county or regional administrative unit."

"Each child in an elementary school is entitled to receive instruction under the guidance of a competent, professional classroom teacher—an individual who understands the process of individual growth and development, who is skilled in the teaching of reading, and who recognizes the needs of individual students."

"The specialists (elementary school principal, school nurse, psychologist, speech therapists, teacher-social worker, teachers in special education, and the specialists in academic subject areas) must provide the assistance which the regular classroom teacher is unable to offer."

"The purpose which runs through and strengthens all other educational purposes—the common thread of education—is the development of the ability to think."

"The major responsibility of the elementary school is met through the curriculum which is made available to each child. The curriculum must provide opportunities for boys and girls to grow and develop toward maturity."

ELEMENTARY EDUCATION IN MISSOURI PUBLIC SCHOOLS

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Purpose: To study the distribution of elementary school children in Missouri school districts, to describe a sound program for Missouri elementary schools, and to attempt to relate the first two purposes to each other.

Distribution of Elementary Pupils:

—Approximately 20 percent of the elementary pupils attend schools in districts having fewer than 1,000 elementary pupils enrolled.

—Two-thirds of the elementary pupils attended districts enrolling 3,000 or more elementary pupils.

—Of the 504 districts examined, 318 enrolled fewer than 1,000 elementary pupils.

—In the more densely populated counties of Jackson, Greene, Clay, and St. Louis, there are 15 districts enrolling fewer than 1,200 elementary pupils. From 20 to 25 percent of the districts in these populated areas are organized into units that are less efficient than necessary for the operation of good elementary programs and services.

Supervisory and Administrative Services:

—Over 90 percent of the supervisory and administrative assistance below the level of superintendent is found in 52 districts of the four heavily populated counties.

—A supportive staff is considered essential to the development and maintenance of a sound elementary program. A vast majority of the districts and approximately 30 percent of the elementary pupils do not have the benefits of such support.

—Most districts with fewer than 2,500 elementary pupils have little or no elementary supportive staff other than building principals and superintendents.

Elementary School Curriculum:

1. Curriculum should reflect a commitment to the education of all the children.

—Curriculum should be designed to provide a meaningful educational experience for all pupils.

—Development of curriculum content should be considered for all pupils at various levels of economic status and intellectual and physical abilities.

—A school district is obligated to finance and administer a complete program or to reorganize so as to provide appropriate programs.

2. Curriculum should reflect the fact of childhood in its content and design.

—This principle underlines the developmental quality of the curriculum and emphasizes the need to provide an articulated program.

—A sound curriculum will show a well-coordinated content from kindergarten through grade 12.

3. Curriculum should reflect the capacity of man to think, to feel, and to create.

—The entire elementary school curriculum should be rich with opportunities to be creative.

—A sound curriculum should represent a balanced program of learning experience, including the acquisition of knowledge and intellectual skills by which that knowledge may be made meaningful.

4. Curriculum should produce not only a respect for reflection, but also a respect for responsible action based on those reflections.

—Curriculum should be designed to provide experiences which relate the knowledge and skills acquired to appropriate application within the whole of the child's life.

—Planned action programs are presented more frequently in secondary schools than in elementary schools.

Current Trends in Curriculum and Instruction:

1. Emphasis is being placed on structures within disciplines.
2. Processes of discovery are being given equal emphasis with the acquisition of knowledge.
3. New curriculum programs are providing new knowledge and new structures for its organization.
4. New materials and equipment are being developed with which instruction may be more easily and effectively individualized. This includes both hardware and software.
5. Physical education is including more attention to the idea of fitness.
6. Some reading programs are giving a greater place to linguistics and simplified alphabets such as the I.T.A.
7. Much more attention is being focused on teacher behavior as a controllable determinant of learning through a variety of observational recording and rating techniques.
8. The social studies are being refined so as to provide refined structures as organizational modes and expanded to include more emphasis on knowledge from such fields as economics, sociology, and anthropology.

School Organization:

—Fixed school buildings often make it difficult to fit the school organizational pattern to the available space.

—The age-graded school concept has been the most persistent organizational form for moving children vertically through the school.

—The non-graded concept is being more frequently used.

—Since 1950 the trend has been away from departmentalized organization toward the more nearly self-contained form of classroom organization.

—Cooperative teaching may well involve the qualities of both the self-contained classroom and the departmental organization.

Administrative and Supervisory Services:

—In a vast majority of the school districts in the state the elementary principal is the only person available to provide supervisory services.

—The elementary supervisory personnel in many school districts must share heavily the administrative duties which substantially reduce the supervisory services.

—Less than 18 percent of the larger districts reported non-teaching supervisory personnel other than building principals.

Pupil Personnel Services:

—Data collected for this paper show that schools with fewer than 2,500 elementary pupils have a very limited number of guidance counselors at the elementary level. In districts of this size out of the 372 districts reported, 47 counselors were available.

—In the 80 districts classified as larger (750-2,499 elementary children enrolled) there were twice as many counselors as in the 292 smaller districts (0-749). (This does not include counselors employed under Title I, ESEA programs.)

—Titles I and III of ESEA have resulted in a major increase in remedial instruction. Special provisions for remedial programs were lacking from the regular district budget in schools with fewer than 2,500 elementary pupils.

Library Services and Instructional Media:

—There is an absence of library services under the supervision of a trained librarian.

—Four full-time librarians assigned to elementary schools were reported from 142 districts enrolling under 749 elementary pupils. Out of 40 districts with 750 to 2,499 pupils, three reported full-time librarians at the elementary level. In most cases, principals and teachers supervised library service.

—Instructional media in elementary schools ranges from conventional motion pictures to the more experimental computerized instructional materials.

Elementary Education and School District Organization:

1. Small school districts (in reality the vast majority of those enrolling fewer than 2,500 elementary children) provide no continuous administrative or supervisory assistance to teachers beyond that available from the building principals and the superintendent of schools.
2. The provision of equal educational opportunity for elementary school children will be more costly in most parts of rural Missouri than in the more urbanized portions of the state.
3. If the necessity to provide for development and improvement of curriculum, instruction, and services continues to be as significant as in the past five years, the needs for improved district organization seems clear.

SECONDARY EDUCATION AND SCHOOL DISTRICT ORGANIZATION

Franklin D. Stone, Associate Director
Iowa Center for Research in School Administration
University of Iowa

An optimum secondary school will have:

—A broad program of studies and activities including:
- English, language arts, and literature
- Two or more foreign languages
- Vocational and/or non-vocational
  - agriculture
  - business
  - homemaking
  - industrial education
- Physical education and health
- Drama and speech
- Mathematics
- Sciences
- Social studies
- Art
- Creative writing
- Music

—An organization which will provide stimulation for self-learning.

—Multiple-activities instructional materials centers.

—Provision for individualized learning and group learning technologies.

—Well-trained, professionally oriented teachers.

—An in-service teacher training program as a continuous process.

—A corps of skilled specialists to assist the teachers, including but not limited to the following services: psychological, social, health, guidance, instructional materials learning, field experience, laboratory learning, handicapped, gifted, culturally developed.

—Housing and facilities conducive to an optimum learning environment.

—Extensive teaching-learning tools and materials.

—The capacity to bring about needed change.

The Story of Five High Schools	**As Separate High Schools**	**As a Merged High School**
Enrollment, 1965-66	70–132	506
Course enrollment in:		
—Business education	421	611
—Foreign language	74	240
—Homemaking	135	170
—Mathematics	296	370
Number of class sections in:		
—Business education	27	22
—Foreign language	9	11
—Homemaking	14	9
—Mathematics	19	15
—Total	69	57
Average enrollment per section	13.4	24.4

Conclusions:

- A greatly broadened curriculum could be offered.
- The increase in enrollment per section reduced the number of sections and decreased the demand for classroom teachers by 17 percent.
- Teachers taught in their field of specialization.
- Greater success was experienced in employing highly qualified teachers.

The typical small high school:

- Cannot attract and hold highly qualified teachers and administrators.
- Does not employ and utilize specialists to enhance learning.
- Does not provide modern, well-equipped facilities.
- Does not provide the quantity of instructional materials needed in the teaching-learning process.
- Cannot provide the breadth of subject offerings needed by students in the modern era.
- Demands a larger financial investment per pupil than is necessary.
- Does not provide the quality programs in education to attract industrial leaders to build factories and to live in these communities.

Research Studies on Size (Summary)

Factor	**Minimum Range**	**Optimum Range**
Achievement	300–400	400–999
Assignment		500+
Cost	350–1,000	500–1,000
Educational Programs	300–1,000	
Activities		150–399
Activities (parent reaction)		1,000–1,599
Teacher qualification	800	
Special services	400–500	750–900
Library	1,000	
Counseling		400–999
School plant		1,500–2,400
Staffing & flexibility		700–1,500

Conclusion: The optimum size of a secondary school is 700 to 900 students.

Selected Quotes

"If the students in small school districts are not to become educationally deprived, the demands for quality and quantity of school programs will have to be met."

"If the individual school program is to meet the needs of students, the size of the school must be optimum, the professional staff must be adequate in size and training, the curriculum must be broad and deep enough, the necessary special services must be readily available from the local district or intermediate unit, the housing and equipment must be ample, and the process for meeting changing needs must be built into the system."

"(Course) offerings should be broad enough that a high school student can study in any area for three years in a senior high school or four years in a four-year high school."

"We cannot expect to bring about the quality and quantity of education demanded by our modern society if we settle for only minimum standards."

"Many secondary schools in the four-state area are presently characterized by:

1. Inadequate staffs.
2. Poor housing.
3. Limited educational offerings.
4. Uneconomical use of public revenues.
5. Insufficient supplies and modern equipment."

"The students in the situation described (those enrolled in small schools) are the ultimate losers."

"The concept of local is undergoing change in order to bring about stronger administrative units that can maintain the essential control of education close to the people. If the local districts are not strong, the state and federal governments may begin to assume control of weak and ineffective school systems."

"With modern transportation, road systems, and communications, the relative size of administrative units can undergo much change without loss of the concept of local school districts."

"Large numbers alone do not ensure high-quality educational programs. This argument begins to collapse, however, when we review the price we must pay for small organizations that cannot provide the human and material resources to provide the kind of education required by modern society."

"One of the fundamental problems in American education is to find ways of providing for change. We must continue to recognize the need to create a climate in local schools that will facilitate change to meet constant demands for more learning."

THE RELATIONSHIP OF CURRICULUM TO SCHOOL DISTRICT ORGANIZATION

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Curriculum Defined

Broad definition: All those experiences for which the schools are responsible.

Narrow definition: A course of study; the instructional program; the program of studies.

Curriculum in Our Changing Society

1. Societal changes influencing the curriculum:
    - The new technology will require more education than we have known in the past.
    - There is an increasing need for education throughout one's lifetime.
    - Students will continue to remain in a formal educational program longer.
    - The population not only is moving to the city, but is constantly moving from city to city.
    - The population is regrouping, with more elderly living longer and with more younger children—both groups having need of education.
2. The school in the social setting:
    - Meeting the needs of changing people necessitates a changing curriculum.
    - A K-12 program is minimal today.
    - The increasing knowledge and the changing curriculum demand highly qualified teachers.
    - The optimum curriculum is the one which best meets the needs of all the students within the district.
    - The program of studies should be sufficiently diversified to provide a broad choice of alternatives for each student.
    - Some students go to college; some do not. The needs of both must be met.
    - Our highly technical society leaves little room for the dropout.
    - Students need as a minimum those skills and backgrounds necessary to achieve a job-entry level of performance.
    - A balanced curriculum must meet the needs of the atypical student—retarded; gifted; handicapped, either physically or emotionally.

Process of Curriculum Development

1. The program needed:
    - A process for curriculum development: needs, objectives, content, learning experiences, evaluation.
    - Constant quest for improvement.
    - Educational objectives clearly stated in behavioral terms.
    - Continuous program for in-service development.

MODEL OF ORGANIZATIONAL STRUCTURE NEEDED FOR ADEQUATE CURRICULUM DEVELOPMENT

Level	Organization	Staff & Personnel	Services; data processing; etc.	Finance	Research
Attendance Center	Minimum	Limited	Limited	From Administrative district	Some
Administrative District	Central staff	More & better trained	Support attendance centers	District-wide base	Program-wide
Area Level	Added specialists	More experts	Interrelated network with districts	More wealth	Diversified, more sophisticated
State	Added services	Added experts	Interrelated network with areas & U.S. office	Diversified taxing	Coordinate & disseminate
Multi-state	Cooperative use of specialists	From cooperating states	Interrelated network of state & U.S. office	Compacts	Inter/Intra-regional problems
Federal	Specialists	Specialists	Coordinating	Categorical	Support, Disseminate

2. The structure needed:
    - Attendance center—
        - —Curriculum council to establish curriculum policy.
        - —Well-prepared staff members with paraprofessional assistance.
        - —Teacher assignment in areas of major training and interest.
        - —Staff interplay and interaction with careful reevaluation.
        - —Individualized instruction with supporting supplies and materials.
        - —All teachers to participate in the curriculum development process.
        - —Assistance of a variety of experts skilled in their specialties and in working with students, teachers, and the public.

- Administrative district:
  - A sufficient student population to provide supporting staff members with leadership and expertise, and to provide a sound, balanced curriculum.
  - Administrative district curriculum council.
  - Instructional supervisors.
  - Capability of supplying the best staff possible.
  - Supporting services: nurses, physicians, psychologists, social workers, guidance counselors, attendance counselors, speech therapists, etc.
  - Continuous program of in-service education.
- Area level:
  - Top-notch subject matter specialists available on call.
  - Data processing.
  - Educational research.
  - Curriculum publications.
  - Special in-service programs, with outside consultants.
  - A variety of contractual services at a minimal cost: computerized information retrieval system, library of video tapes, a complete audiovisual service, services of specialized personnel.
- State level:
  - Curriculum and instructional specialists.
  - Data processing facilities to complement and supplement area offices.
  - Responsibility for all educational endeavors within the state.
  - Strong push toward quality education.
  - Keep pace with the new potential through modern technology.
- Multi-state level:
  - States with like problems and interests may be forced to join together to assist each other in the solving of mutual problems.
  - Cooperative effort to provide prohibitive (financially) technical capabilities.
  - Greatly improved and expanded research capacity.
- Federal level:
  - Federal funding for specified purposes (although this sometimes throws the local district budget out of balance and forces major changes within the district).
  - Federal assistance to bring substandard units up to an acceptable standard.
  - Top-quality leadership to be made available to all states.
  - Provide protection to individual districts from outside pressures.

The Size Factor for Optimum Curriculum Development

1. A district would need 25,000 to 30,000 students to meet all conditions for the curriculum most satisfactorily.
2. Recommended enrollment figures for secondary school attendance centers range from 500 to 1,500 pupils.
3. As districts continue to grow past the 30,000-pupil figure, the need for assistance from area resources should gradually diminish.

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Personnel Necessary for Curriculum Development

1. It is impossible for one individual to be an expert in all the disciplines.
2. The central curriculum staff should include specialists in each of the following areas:
   - Art
   - Audio-visual
   - Business education
   - Data processing
   - Early childhood
   - English-language arts
   - Evaluation and research
   - Exceptional children (talented & retarded)
   - Federal relations
   - Home economics (family relations)
   - Languages
   - Library services
   - Mathematics
   - Music
   - Occupational-vocational
   - Physical education
   - Science
   - Social science

Essential Supporting Services

1. The broad range of pupil personnel services.
2. Research and development.
3. Instructional materials—at all levels and in adequate program support.
4. Communication—within the staff and with outside groups and agencies.
5. Directed and coordinated utilization of outside curriculum influences: U.S. Office of Education, the state education agency, foundations, industry, the university, and pressure groups.

Selected Quotes

"Each school district has a part in educating future workers for the entire country."

"Larger schools give children a broader, richer, higher quality educational opportunity at a lower cost per pupil."

"Some limitations (curriculum) would be found if a district has as many as 10,000 pupils."

"If the district should find it necessary to operate a small school, adequate provision should be made to compensate the instructional program through the provision of outside assistance."

"One consistent weakness of small districts is their inability to offer a reasonable selection of courses. As a result, therefore, the curriculum is limited to those courses absolutely necessary for college admission and very little else. Such a circumscribed curriculum does little to meet the needs of all the students and in fact forces them into a single mold—or out of school as a dropout."

"No matter what the size, it is very important for the district to recognize the need for an individual approach to the curriculum."

"The staff is actually the key to achieving a strong, well-balanced curriculum."

SELECTED COMPARISONS OF TEACHER AND CURRICULUM CHARACTERISTICS AND SIZE OF HIGH SCHOOLS

E. James Maxey and Donald R. Thomas
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University of Iowa

Purpose

1. To provide data essential in an approach to the problems of organizational and institutional change in secondary education.
2. To provide data for a more effective evaluation of the need for change in the organizational patterns of school districts.

Plan of the Study

1. To prepare selected summary data on teachers and curriculums in Iowa (the only state that has information computerized for immediate analysis on a statewide level).
2. To report the results of a survey of curricular and technological innovations for the North Central Association–accredited secondary schools in Iowa, Missouri, Nebraska, and South Dakota.
3. To prepare such data for analysis by size groupings of high schools.

Size of Iowa School Districts

The number of Iowa school districts by size ranges (K-12 enrollment):

0–499	119	1,000–1,499	57	3,000 and above	25
500–749	120	1,500–1,999	30		
750–999	71	2,000–2,999	33		

Teacher Characteristics in Iowa

1. The smaller the school, the greater the chance that the teacher will teach in two or more subject areas.
   a. One teacher taught in 6 subject areas.
   b. The median in schools with an enrollment of less than 500 was 1.55; more than 1,500, from 1.19 to 1.22.
2. The smaller the school, the greater the number of subject preparations.
   a. The median decreased from 3.50 in schools with fewer than 500 pupils to 1.95 in schools with an enrollment of from 1,500 to 1,999.
   b. As high schools increase in size, there is more opportunity to take advantage of the specific subject area preparation of the teachers.

3. Schools with larger enrollments tend to attract teachers with better preparation.
   a. The percentage of teachers with Master's degrees increased from 13 percent in the smallest districts to 30 percent in the largest districts.
   b. The mean years experience increased from 9.79 in the smallest districts to 13.36 in the largest districts.
4. Larger districts pay teachers higher salaries. The mean teacher salary in the smallest districts was $6,087, while the mean for the largest districts was $7,205.
5. Teachers in larger districts meet more pupils daily.
   a. The mean number of students met daily varied from 79 in the smallest districts to 135 in the largest districts.
   b. Class sizes in larger districts are likely to be between 20 and 30, while smaller districts maintain class sizes of 10 to 15 students.

High School Curriculum Characteristics in Iowa

1. As school district enrollment increases, more courses are available to high school students. The mean number of course offerings ranged from 63.4 in the smallest districts to 100.7 in the largest.
2. As district enrollment increases, the largest increases in course offerings are noted in the areas of foreign language and business, technical, and vocational education.
3. As district enrollment increases, more courses are available to junior high students. The mean number of course offerings ranged from 20.5 in the smallest districts to 56.8 in the largest districts.

EDUCATIONAL INNOVATION IN THE SECONDARY SCHOOLS OF THE GREAT PLAINS STATES:

Curriculum Innovations

1. Schools with innovative programs tend to have high school enrollments of at least 200 students.
2. PSSC Physics and Chemistry Study Group Chemistry are by far the most popular recently developed curricular programs.
3. Innovations in mathematics and physical science are not as popular as those in physics and chemistry.
4. Larger school systems are not employing "modern" curriculum materials any more than middle-sized systems.
5. More money spent per pupil does not necessarily mean more innovative change in curriculum.

Technical Innovations

1. Language laboratories appear to be the most popular technical innovation. They are found more frequently in smaller high schools than in larger schools.

2. Data processing, though not employed extensively in Missouri, Nebraska, and South Dakota, appears to be the second most popular. However schools tend to enroll more than 500 pupils before data processing equipment is found. The most frequent uses are for computerized grade reporting, attendance reporting, scheduling, and business accounting.
3. Television instruction is employed more extensively in Nebraska than in other Plains states. Most schools using television enroll fewer than 500 students.
4. Programmed instruction appears to be more popular in South Dakota than in other states.

Organizational Innovations

1. Very limited use is being made of any organizational innovations within the four Plains states.
2. In Iowa, Nebraska, and South Dakota, student exchange programs seem most popular and work-study programs run a close second. In Missouri, these two are reversed.
3. Team teaching and flexible scheduling have not been popularly received, nor are they being implemented extensively in any of the states.

OBSERVATIONS

*The secondary school should be located in a district with a total enrollment of at least 1,500 pupils in order to secure maximum benefit of teacher preparation.

*More specialized personnel (librarians, principals, guidance counselors, special education teachers, and supervisors) are available for expanding educational opportunities in schools enrolling 1,500 or more students.

*As school enrollments increase, the number of specific curricular offerings increases, with the largest increases recorded in areas of foreign language and business, technical, and vocational education.

*There is little evidence of extensive application of curricular, technical, or organizational innovation within schools of the Plains states.

*Where curriculum innovation is evidenced, it is more likely to be found in districts enrolling from 200 to 1,500 students.

*Technical innovations are more likely to be found in districts enrolling more than 500 students.

*Schools in the Great Plains do not seem to be making much use of organizational innovations. There are few instances of team teaching and flexible scheduling.

*There is little indication that increased per pupil costs are related to the implementation of innovative educational practices.

A DEFENSIBLE EDUCATIONAL PROGRAM FOR THE SECONDARY SCHOOLS OF MISSOURI

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Purpose: This paper was prepared to aid in the consideration of defensible secondary programs for Missouri schools.

Assessment of Existing Secondary Educational Opportunities

—All youth in Missouri are entitled to equal secondary educational opportunities regardless of geographical conditions or socioeconomic backgrounds.

—Teachers in AAA schools average 160.4 college hours as compared to 146.6 for teachers in the Class A schools.

—Quality of a school program is affected by three factors: (1) the scope or breadth of the program, (2) the effectiveness of the school administration, and (3) the quantity and quality of the teaching staff.

—The Class A and unclassified school districts have limited curriculum offerings; the levels of training and experience of professional personnel are lower than those in higher classified school districts.

Defensible Breadth in Secondary Schools of Missouri

—A program must be broad enough to provide knowledge, understanding, and growth experiences in vocations, health, citizenship, family living, consumer education, aesthetic appreciation, leisure activity, science, social science, mathematics, and communications.

—A defensible minimum program in four-year secondary schools would include: 5 to 6 units in mathematics, 4 units foreign languages, 5 to 6 units business education, 2 to 3 units industrial arts, basic skill courses in 4 or more vocational areas, 5 units science, 6 units social science, 6 to 7 units communication skills, 2 units health and physical education, 5 units art and music, 2 units home economics.

Mathematics Survey

—A sample of 50 schools consisting of 15 Class AAA, 8 Class AA, and 27 Class A schools were examined to determine the mathematics offerings.

—The percentage of schools teaching "modern" and "traditional" courses:

Courses	"Modern"	"Traditional"
Functional Mathematics I	0%	94%
Functional Mathematics II	0	12
Terminal Mathematics	48	12
Algebra I	48	48
Algebra II	52	42
Geometry	6	76
Solid Geometry	0	2
Trigonometry	0	60
Matematical Analysis	36	0
Elementary Functions	4	0
Matrix Algebra	2	0

Business Education in the State

—In 1965-66 496 school districts were examined to determine the course offerings in business education and vocational distributive education.

—Some of the more prominent trends in business programs and practices include:

1. A combination of major programs in business are being developed in many schools.
2. The number of schools requiring skill subjects is on the decline.
3. A course in merchandising is more popularly required now.
4. A number of small schools have added courses in office practice.
5. About 10 percent of the schools involved reported that accelerated programs in business had been developed for able students pursuing academic curricula.
6. Generally, schools are adding business courses.

—Originally, the objective was vocational competency, skill, and training. Now much emphasis is given to the importance of the non-vocational aspects of general business understanding.

—A third of the public school population receives very little in occupational preparation.

—The objectives of a comprehensive high school should be to provide a general education for future citizens, to provide elective programs for those who wish to use their acquired skills upon graduation, and to provide satisfactory programs for those whose vocations will depend upon further education in college.

—The summary includes recommendations for industrial arts in the comprehensive high schools of Missouri.

Vocational Education

—Vocational education represents an opportunity for individuals to help themselves and to make contributions to society through an orderly acquisition of marketable skills, knowledge, and attitudes.

—Programs of vocational education are an integral part of the community and region in which they exist.
—Vocational programs develop from within a community.
—A vocational education curriculum may be described as a series of organized experiences designed to prepare students for employment.

Status of Social Studies Programs in Missouri High Schools

—Changes made in social studies from 1961 to 1965 consist primarily in additions to the course offerings. Some new content has been added.
—Rarely do high schools of Missouri undertake an intensive curriculum development project which entails an entire revision of the social studies program.
—Current trends in social studies indicate the following:

1. There is a search for a conceptual framework for a total K-12 program.
2. There is increased emphasis on the sequence of social studies.
3. New views of readiness are being developed.
4. The social studies program will be concerned more and more with a comprehensive world view.
5. The study of society's unresolved problems, both domestic and international, is a major focus of projects.
6. Many kinds of multi-media learning materials and procedures are used as a result of inductive learning demands.

EDUCATION FOR THE CULTURALLY DEPRIVED

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The following statements represent the position of Dr. Keith Prichard, of the University of Nebraska, concerning the goals, curriculum content, staffing, and equipment desirable for the education of the culturally deprived.

1. **Institute elements of the family structure in the school to function on the more informal levels of the education of the culturally deprived and to aid them in complete personality development.**
2. **Organize the schools for the culturally deprived so that the personnel clearly serve as parental substitutes and role models.**
3. **Organize the classrooms for the culturally deprived around the concept of having two teachers in the room—one teacher to continue with the students up through the various grade levels and to serve as a parental substitute, and the other to carry on the academic teaching.**
4. **Use available and desirable young men to act as non-teaching personnel in the classroom and schools to serve as male role models for the culturally deprived. Hopefully, some such positions may be worked out for returning G.I.'s from Vietnam where the applicants have the desired personality traits.**
5. **Carry on workshops for preparing regular elementary teachers in the public schools to deal with the youngsters who have entered from the special schools for the culturally deprived.**
6. **When possible, use a program adapted to the needs of the culturally deprived. Where this is not economically possible, have special summer school programs for the culturally deprived that run from first to eighth grade. In some fashion give "booster shots" of education of both a social and an academic nature to the deprived until they are well into high school.**
7. **Use language bombardment as much as possible as a vital element in the formal and informal education of the culturally deprived.**
8. **Have printed locally multi-racial materials for use by the culturally deprived, and have such materials deal specifically with the local scene and with local personalities.**
9. **Construct the curriculum loosely so that negative tensions may be reduced during the learning process.**
10. **Reconstruct the schools for the culturally deprived so that, in as much as possible, desirable home living situations may be duplicated.**

11. Provide areas, buildings, and facilities with easy accessibility for the culturally deprived. Some persons have suggested that such units should be built directly into large public housing projects.
12. Give rewards to those junior high and senior high school students who are classified as culturally deprived. Such rewards would be given according to grades, attention, attendance, etc., and might include such things as special opportunities to work for financial gain (financial subsidization has been suggested), and others.
13. Concentrate in the initial phase of the learning process on the "appreciation" level of learning rather than on the traditional "perceptual" and "conceptual" levels.
14. Set definite goals and attempt to set up scientific controls so as to measure the rate or level of accomplishment and hence the worth of the program.

SCHOOL DISTRICT ORGANIZATION AND GOALS OF SOCIAL COMPETENCE

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The Goals of Social Competence

The achievement of social competence on the part of their students is a widely accepted goal of American schools. Social competence is, to be sure, a rather elusive term, subject to a number of possible interpretations. In 1938 the Educational Policies Commission treated this general area of educational concern under the four categories of (1) self-realization, (2) civic responsibility, (3) human relationships, and (4) economic efficiency. Since that time such goals have been reformulated in a variety of ways by a number of individuals and organizations. Many of the goals in this area are of a non-cognitive attitudinal nature, often quite intangible, and difficult to define with precision. The use of the **Taxonomy of Educational Objectives** in the affective domain by Krathwohl, Bloom and Associates should prove promising in the more specific formulation of such objectives and their eventual measurement.

Research in the Field

In spite of limitations of measurement, however, there has been a considerable body of research dealing with attitude changes and the achievement of non-cognitive objectives. During the 1930's a number of studies used test-retest scores on standard attitude scales with college students. These studies generally revealed the development of a more liberal attitude toward social issues as the students moved through their college programs. After 1940 researchers began to introduce the sex variable and to develop more sophisticated tools for measuring attitude changes. Prevailing findings continued to reveal greater liberalism and sophistication in social, political, and economic outlook as well as a broadening of interests on the part of students during their college years. This writer, in 1950, found that Nebraska high school seniors who scored highest on the PEA Test of Interpretation of Data, the Cooperative Test of Recent Social and Scientific Developments, and the test of Judgments Characteristic of the Socially Competent Person tended to come from significantly larger senior classes than did those who scored lowest on the same tests. Jacob, in a well-known study first published in 1956, reported a great similarity of values on the part of college students throughout the country and very little change in values during their college careers for 75 to 80 percent of college students in general. Jacob's study has since been criticized on the grounds that the sex variable is ignored, that erroneous motivation may be attributed to student responses, and that too little attention is given to the minority whose values did undergo a substantial change. Several recent summaries of research in this area tend to corroborate in general the findings reported prior to 1945. Muller, in a 1967 study of college freshmen at the University of Nebraska and Nebraska Wesleyan University, concluded that attitudes of students do change during their freshman year but that no overall liberalizing effect could be determined. Although his study did not include extremes in school size, he reported no significant difference in attitude changes for students from schools of varying size.

Staffing for the Development of Social Competence

The teacher variable is obviously a factor in the degree to which objectives of social competence are realized. There can be little question that teachers in small rural and village elementary and secondary schools in the Middle West are less adequately prepared and have experienced a more limited range of social and cultural contacts than their counterparts in medium-sized and larger school districts. Ryans, in a study of teacher characteristics, found that teachers in smaller schools scored significantly lower than teachers from larger schools on scales measuring friendly and stimulating classroom behavior. Jean Grambs, on the basis of sociological investigations, asserts that rural America has demonstrated its ability to "provide only a few windows on the outside world." One of the obvious problems here is paying salaries to attract the most competent teachers. Furthermore, studies show that states such as Nebraska experience a serious out-migration on the part of their youth. The task of the teacher has been further complicated in rural areas by the existence of conservative groups which, under the guise of school improvement, have made formidable efforts to preserve a parochial outlook on social, political, and economic issues.

Conclusions

From the evidence available to us, it seems safe to conclude that most educators and lay citizens assume that schools will pursue goals of personal and social competence beyond the traditional cognitive objectives associated with the acquisition of subject matter. Despite the lack of precise assessment in this realm, it also seems safe to say that the achievement of these goals is in part determined by the type of school districts in which young people attend schools. More evidence, however, is urgently needed if we are to plan for the development of optimum school districts, large enough to provide adequate educational programs and services and yet small enough to ensure the competent personal attention that is the essence of effective education. It would seem highly desirable for the Great Plains School District Organization Project to conduct or sponsor an exhaustive study of the relationship of the achievement of goals of personal and social competence to the characteristics of various types of school districts, using the most sophisticated research tools currently available to gather meaningful and measurable evidence about the issue at hand.

THE ESSENTIALS OF A QUALITY ART EDUCATION PROGRAM

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The Goals of the Art Program

A well-articulated and coordinated art education program has a very definite contribution to make to the well-integrated and cultured personality. Its aims and objectives should emphasize the areas where it can contribute the most. The following aims are established and proved. Activities in art are planned and developed so as to achieve several of these goals simultaneously

1. To provide opportunities for creative expression.
2. To teach fundamentals and techniques of art.
3. To correlate art with other learning areas.
4. To identify the talented and provide counseling and direction toward a vocation.
5. To provide a program of gradual development in art with suitable opportunities for growth at all levels.
6. To provide for social experiences and wholesome activities that establish respect of classmates.
7. To develop a relationship between contemporary art and daily living.
8. To expose the visual expressions of historical and cultural significance.

The Content of the School Program

The school art program must provide experiences that are in harmony with the interests and the mental, social, and aesthetic maturity of the student. Some of the experiences that should be provided at appropriate grade levels include:

1. Expressing individual ideas and feelings through the use of a variety of art media suited to the manipulative abilities and expressive needs of the student.
2. Experimenting in depth with art materials and processes to determine their effectiveness in achieving a personal expressive form.
3. Working with tools appropriate to the student's abilities in order to develop manipulative skills needed for satisfying aesthetic expression.
4. Organizing, evaluating, and reorganizing work in progress to gain an understanding of the formal structuring of line, form, color, texture, and value in space.
5. Looking at, reading about, and discussing works of art: painting, sculpture, constructions, architecture and industrial and handicraft products, using a variety of educational media and community resources.

6. Seeing artists produce works of art in their studios, in the classroom, and on film.
7. Engaging in activities which provide opportunities to apply art knowledge and aesthetic judgment to personal life, home, or community planning.

Elementary. The elementary art program stresses the experimental nature of art. The major emphasis should be on the making of art expressions with a variety of materials and processes. There should always be a conscious relation of these activities to the appreciation of the place of art in the child's culture.

A minimum of 100 minutes per week should be provided for the art instruction of every elementary school student. In addition to the regular instructional program, children should have supplementary and individual art experiences provided beyond the classroom—visits to museums, galleries, artists' studios, and other sources of artistic contributions to the culture of the community.

Secondary. At the secondary level, learning experiences in art should provide for the realization of the four aspects of art education: seeing and feeling visual relationships, producing artistic expressions, studying and appreciating works of art from the past and present, and the critical evaluation of art products. The goals of the secondary program are generally more exploratory and more academic than those of the elementary program because most students partaking of it are those who have elected to study further in this field.

Art should be **required** for all students for one (or more) semesters in the junior high school, with one or more semesters **available** at each grade level. The student with talent in art should be able to elect courses at each grade level.

In grades 9 through 12, a student should be able to pursue art both as part of a general education program and in special elective areas of greater depth, such as studio courses or art history.

All secondary art classes should consist of a minimum of 200 minutes per week, with scheduling modified to allow long or short periods in order to incorporate large group instruction and laboratory learning situations.

Staffing

In the primary grades, art should be taught by the classroom teacher, who should have special training in primary art education. In the intermediate grades, a special art teacher should be in charge of the art education. The National Art Education Association recommends at least one specially trained teacher for every 300 children. A resource person, such as a coordinator or supervisor, should also be available for consultation, guidance, and assistance.

At the secondary level there should be at least one art teacher for every 25 scheduled art periods per week. No more than 125 students should be assigned daily to each art teacher. Every art teacher should have a one-hour block of time each day for planning and preparation of art activities for the classroom. Special training for teachers in the field of art should consist of a minimum of 45 credit hours in art education.

Special Equipment and Facilities

Optimum results can be realized when a scheduled time is provided to teach art as a separate subject in all the grades, with adequate and flexible facilities and equipment available for use by properly trained and experienced teachers and supervisors.

Every elementary school of 300 or more children should have a special art classroom. It should be visually attractive, provide adequate work space (no less than 50 square feet of work space for each child), and should be equipped with storage facilities, a kiln, easels, display areas, and a resource center. Adequate source materials and expendable media must be amply provided.

In the secondary school of 500 students or less, there should be at least one general art room with no less than 65 square feet of work area per pupil and no more than 25 students assigned to the room at any one time. Approximately 400 square feet of storage space should be available in the art room or adjacent to it. The general art room for both junior and senior high should be designed to allow for flexibility—film or TV viewing, reading, listening to lectures, looking at exhibits, working on two- or three-dimensional forms, and for extracurricular art activities. The general art room should provide functional furniture, instructional aids, tools, and supplies appropriate to the program.

In the secondary school of more than 500 pupils, there should be provided one or more specialized art rooms for the following: metal crafts, ceramics, printmaking, and photography.

BUSINESS EDUCATION FOR TOMORROW'S WORLD

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The Goals of Business Education

Judging from current enrollments and past performance, business education has established itself as an integral part of the secondary school curriculum. Today as never before the need exists to prepare young people to live useful, productive lives in a business-oriented society. To accomplish this, every secondary school is obligated to make available to its student population a comprehensive program in secondary business education. This program will have as its major objectives:

1. To provide all students with opportunities to develop basic understandings of business and economic principles, and to emphasize the role of the individual consumer in affecting decisions regarding those principles.
2. To provide all students with the opportunity to develop marketable skills which will lead to job competencies in business, office, and distributive occupations.
3. To provide all students with the opportunity to develop personal-use competencies which can be beneficial to everyone.

The Content of the Business Education Program

To accomplish the objectives stated above, the business curriculum must provide extensive course offerings in the basic business subjects (i.e., general business, business law, economics, consumer economics, etc.) and vocational sequences which will prepare students for employment in stenographic, clerical, bookkeeping-data processing, and distributive occupations. The vocational sequences necessitate extensive course offerings in the various levels of typewriting and shorthand, bookkeeping, office machines, selling and merchandising, clerical and secretarial practices, etc. In addition, business courses which have value because of their personal-use nature should be available to students on an elective basis (i.e., beginning typewriting, note making, record keeping, etc.).

Staffing

The following factors should be considered when selecting the staff for the business education program:

1. Possession of a baccalaureate degree from an institution having a strong business education curriculum.
2. Possession of a collegiate major in business education.

3. The teacher should be particularly skillful and proficient in the area of assignment.
4. An advanced degree in business education is highly preferred. Certainly, recent attendance at summer school and workshops should be encouraged.
5. The teacher should hold membership in and be active in professional business education organizations.
6. The teacher should have a background of work experience in business.
7. The teacher should be approved as a vocational business teacher if the program is designed as a reimbursable one.

An important feature of any comprehensive secondary business education program is the provision of extensive counseling services given by competent, professionally trained counselors who approach their responsibilities impartially and objectively. The program should also provide work experience for students in vocational business sequences, and business-related youth clubs for all students enrolled in the business education curriculum.

Special Materials and Equipment for the Business Education Program

All typewriters and business machines that are secured by the school for instructional purposes should reflect the brands and models of those machines used in the business community and encountered by graduates in their initial employment.

The following equipment should be available: (1) typewriters, (2) ten-key and full-key adding machines, (3) rotary and printing calculators, (4) bookkeeping machine, (5) duplicating machines, (6) transcribing equipment, (7) key punch and other equipment peripheral to the computer, and (8) multiple channel dictation facilities for shorthand instruction.

The distributive education classroom should be equipped with display cases, a display window, wrapping and sales counters, mannequins and display props, cash registers, scales, tape recorder, drawing table, sign-making equipment, and either trapezoidal or rectangular students' tables.

It is important that a wide variety of instructional media be available for the business education program.

ENGLISH

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The Goals of the English Program

English is that part of the school program which seeks to achieve a valid, working understanding of the nature of language in all its levels and uses. The study of English presents the opportunity for the development of a more wholesome attitude toward linguistic study, a more thorough understanding of our rich literary heritage, and the development of written and oral language abilities.

Basic objectives are:

1. To attempt to clarify how much English should be taught, what English courses should contain, and what conditions will best meet the demands both of English as a subject and of the individual student who is taking English.
2. To give students from kindergarten through college in-depth contact with examples of the best literature of the world.
3. To develop insights into the nature of language, meaning, and usage through inductive examination and description of language.
4. To develop narrative and expository composition skills through frequent practice, both oral and written, in every grade, basing these practices on professional techniques and on the literature being studied.
5. To make a definite effort to relate or integrate the three basic areas of English to each other by using composition and language study based upon literature whenever possible.
6. To take advantage of new research and new methods.
7. To contribute to the development of a well-integrated personality and wholesome cultural growth.

Special consideration should be given to these particular objectives which relate to the character of students at the three developmental grade stages or levels:

Elementary—give the pupil a full knowledge of what language can mean and do for him, and help him to satiate his intense curiosity.

Junior high—seek to help the student explore, giving him freedom but also a foundation, without crushing his enthusiasm for learning and knowledge.

Senior high—help the student to learn to think rationally about problems, to "think through" an idea, to relate what he has learned to situations he may expect in the working world.

The Content of the English Program

The program should provide for integrated instruction in the areas of literature, language, and composition in a sequential, articulated K-12 English curriculum. Instruction should be provided in a spiral framework, with each year's content based upon previous learning. Study and activities should be designed to help each student develop to a maximum the basic objectives listed on the preceding page.

Staffing

1. An English chairman or English curriculum supervisor should be available to provide continuity, in-service training, and leadership to all English teachers within the K-12 district.
2. All secondary English teachers (grades 7-12) should optimally possess a Master's degree in English; in no case should a teacher teach with less than a major in English, with supporting courses in psychology, English education, and practice teaching in English.
3. All elementary teachers should possess undergraduate degrees, with at least 15 hours in English.
4. Every senior high school (grades 10-12) should have at least 2 full-time English teachers to provide for a minimum of professional interaction and personal professional growth. An optimum program would probably require at least 6 teachers in a school of at least 600 students, grades 10-12.
5. An English teacher should teach no more than four classes a day, with a total enrollment of no more than 100 students.

Special Equipment and Facilities

1. All buildings should be equipped with Educational Television and possess at least one video-tape recorder.
2. Considerable library resources are needed for an adequate English program. A 10,000-volume library would be optimal for a high school (grades 10-11) of 600 students.
3. Elementary schools need centralized libraries, trained librarians, and opportunity for the children to use these resources.

FOREIGN LANGUAGE

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The Goals of the Foreign Language Program

The teaching of modern foreign languages has undergone a complete reevaluation; consequently, there has been a shift in emphasis on the skills and insights which the students should gain. Specifically, language study should provide for the total educational experience of the child and serve to open avenues of communication among people as well as provide avenues to the understanding of other cultures. It is imperative that we prepare especially those traveling abroad, as well as those filling positions in business or government, to the extent that they speak the other person's language and thereby develop the ability to deal with mutual problems. Surely this would enhance the understanding of peoples who have been drawn much closer through modern technological developments. In light of these objectives, language teaching must encompass mastery of all four skills: listening, speaking, reading, and writing.

The Content of the Foreign Language Program

1. A six-year program for a foreign language is most desirable. The minimum program would be a three-year program in grades 10-12, which should be developed into a four-year program. A second foreign language should be offered only after a program of at least four years is available in the first language.
2. The seventh grade is a desirable level at which to begin foreign language study, since the student has enthusiasm, interest, curiosity, and the willingness to imitate.
3. Daily exposure for periods of about 25 minutes should be provided in grade seven, with the emphasis on listening and speaking. The eighth-grade program can be similarly arranged, or lengthened in the time allowed. The ninth- through twelfth-grade program would be devoted to all phases of instruction—listening, speaking, reading, and writing.

Staffing

1. Effective audio-lingual foreign language teaching demands a teacher who is a competent speaker of the language, who has received extensive training in the methodology, and who knows how to approach the complex system of habit formation necessary to language teaching.
2. The teacher load should not exceed 20 students per class. An optimum assignment would be four periods per day, with no more than three different preparations for each teacher.

3. Three foreign language teachers would be required in grades seven through twelve for a school with approximately 650 to 700 students enrolled.
4. There is an imperative need for a coordinator of the foreign language program in the school system.
5. Paraprofessionals should be employed to assist in the language laboratory.

Special Materials and Facilities

1. Basic materials should provide full scope and sequence in an articulated program, with tapes and other supplemental teaching aids available.
2. An integral part of the program should be a learning laboratory which provides valuable self-analysis for the student and is useful as a testing tool. In a school offering one language, a minimum of 25 carrels is necessary. If two languages are offered, the facility should provide for 40 stations. The console should include seven tape decks and a phonograph.
3. A media center should offer not only the full gamut of audio-visual materials, but also a wide variety of supplemental materials, both in the language and in English, dealing with a range of subjects from folklore, customs, geography, and history to the lighter pieces of fiction. Periodical literature in the language should also be available.

AN ADEQUATE HEALTH PROGRAM FOR NEBRASKA SCHOOLS

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The Goals of the School Health Program

Our educational program should be concerned with providing a sequence of significant and appropriately planned **health instruction experiences** for each child throughout his entire school life. The program should also, in cooperation with the community, seek to provide an optimum health environment in which the child learns and lives, and should offer complete health services to our boys and girls in school.

The Content of the School Health Program

Health Instruction. Health education is multi-disciplinary in nature. Its content is largely derived from medicine; public health; and the physical, biological, and social sciences. The following list of health education areas are suggested as a random listing of content areas from which the sequential school health curriculum should be drawn: (1) community health; (2) consumer health; (3) dental health; (4) environmental health; (5) exercise; (6) family health; (7) health careers; (8) healthy body; (9) international (10) mental health; (11) nutrition; (12) personal health; (13) prevention and control of disease; (14) rest, sleep, relaxation, and leisure; (15) safety; and (16) stimulants and cigarettes.

Health Services. The school system should offer a comprehensive program of acceptable health services, which include: (1) periodic health examinations; (2) frequent screening tests (including growth and development, vision, and hearing); (3) well-trained teachers in an observational role; (4) an effective system of referral examinations; (5) an effective means of follow-up; (6) the employment and use of psychologists; (7) use of mental health clinics; (8) a health guidance program; and (9) completed, up-to-date health record forms.

Health Environment. Every responsible person must exercise care in making decisions which affect the housing of school children. Considerations for a healthful environment must be given to: (1) the school building, (2) the water supply, (3) waste disposal, (4) ventilation, (5) lighting, (6) acoustics, (7) equipment, (8) housekeeping practices, (9) food service, (10) traffic control, and (11) playground construction and equipment. The pupil's day should be organized and supervised in such a way that he is kept active in experiences that are meaningful and wholesome. Special attention should be given to the proper balance of the pupil's study, rest, physical activity, and recreation.

Staffing

For Health Instruction. Elementary: In the elementary grades, the classroom teacher is responsible for the health instruction. The professional preparation should include at least one course in personal and community health, and one course in health education. **Junior-Senior High School:** An acceptable health education program in the junior-senior high school demands a professionally educated person with a health education major.

For Health Services. The school must have, in addition to the teaching personnel for the health instruction, access to such professionals as a nurse, a physician, a dental hygienist, and a psychiatrist.

For Health Environment. For a healthful school environment, the following personnel are essential: (1) a competent dietition or nutritionist for the supervision of the lunchroom, (2) a superintendent of grounds and buildings who is well trained in safety and sanitation practices, and (3) an administrative and teaching staff which is willing to cooperate in providing for and maintaining an optimum school environment for the welfare of each and every student.

Special Materials and Equipment for the School Health Program

It is recommended that a school should have a large enough student population to warrant a suite of offices and rooms to serve effectively the health needs of the school population. This facility should include: (1) offices for the health coordinator and a nurse, with filing space and space for secretarial assistance; (2) two completely outfitted examination rooms, one for boys and one for girls; (3) a waiting room; and (4) a room for supplies.

THE ARTS-HUMANITIES AND SCHOOL DISTRICT ORGANIZATION

Leon C. Karel
Northeast Missouri State College

The Arts-Humanities Area of Knowledge

A broad area that embraces those subjects which have to do with man's involvement in fundamental questions of purpose, existence, ethics, beauty, and meaning. Science, it is said, tells us "how." The humanities seek to tell us "why."

The Need

1. A general cultural need for arts-humanities.
    a. A 50-year record of achievements: greatly increased national productivity, personal income, standard of living, global power, technology, and many others.
    b. A 50-year record of indifference to beauty: the sprawling urban blight; the slums; the junkyards; the water and air pollution; the parallel pollution of trashy novels and of radio, television, stage plays, and many others.
    c. A need for a revival of the humanitarian spirit to balance our national preoccupation with material things.
2. A school curricular need.
    a. The humanities area is unevenly represented in the school curriculum.
    b. The humanities area is taught primarily from the performance angle, thus eliminating 85 percent of the student body from such instruction.
    c. Over-involvement in one area (specialization) prevents study and participation in other areas (example: music students miss art).
    d. Overstressing entertainment leads to an understressing of basic values. Schools do not exist to provide public entertainment.
    e. Students are selected to fill vacancies (band, orchestra, etc.) for school purposes rather than the program's meeting the real interests and needs of the students.
    f. The arts, as taught, have little carry-over into adult life.
    g. There is no exposition of the "aesthetic thought process" by which the student will learn how to interpret his world artistically. For instance, there is no attempt to interrelate music and literature, despite the fact that they both exist temporally and use common elements of pitch, duration, volume, and timbre.

The Structure of the Arts-Humanities Area

1. Common approaches.
   a. Historical: Each art has a historical background. For example, we could start with a study of the classical Greeks through their architecture, sculpture, literature, and music, and arrive at a more profound understanding of this remarkable era.
   b. "Great Questions" approach: The art masterworks could help to give the answers to such questions as: What is our relationship to our creator? How should patriotism, honor, and love figure in our actions?
   c. Elements-and-structures approach: The arts are successful solutions to problems inherent in the medium of the particular art work. The emphasis is upon elements, structures, techniques, mediums, and so on.

The first approach teaches historic thought processes, and the second encourages philosophical or ethical thinking. The third helps the student to view his contemporary world aesthetically, a pressing need for all students.

2. Art elements and principles approach.
   a. Mental training—the cognitive domain.
      Memorizing
      Comprehending
      Applying
      Analyzing
      Synthesizing
      Evaluating
   b. Emotional training—the affective domain.
      Attending
      Responding
      Valuing
      Organization of value systems
      Commitment to value system
   c. Psycho-motor training—the art skills.
      Talented students who want to pursue skills in the arts seek private instruction.
      All others develop skills only as an aid to understanding the arts; no public performance.

Teaching and Learning in the Arts-Humanities Area

If we are to reach the goal of producing students who will continue to teach themselves about the arts because they enjoy doing so, eventually becoming discriminating consumers, we must consider carefully how and what we shall teach to achieve this result.

1. Start with those facets of the arts which the student finds interesting and thinks important.
2. Initially, emphasize everyday aspects and ordinary levels of the arts, rather than masterworks.
3. Remember that we are dealing with all students, not just those from the upper-middle and upper classes.
4. Constantly encourage the youngster to think for himself.

Teacher Preparation in the Arts-Humanities Area

1. Present college teacher training courses do not provide for the preparation of teachers who can combine the arts in a unified course.
2. Some states (Missouri, New York, Pennsylvania) have a published curriculum guide for an Allied Arts course for the in-service training and utilization of teachers.
3. Increasing attention must be given by teacher training institutions to the type of candidate, the curriculum, the college structure, and teaching of related arts for college students.

The Material Aspects of the Arts-Humanities Area

1. The complete curriculum: K-12 — continuous, coordinated, developmental.
2. Classrooms: Well designed, pleasant, artistic.
3. Mechanical devices: piano, overhead projector, slide and film projector, movie projector, opaque projector, tape recorder.
4. Facilities: Educational media center; television network connection; libraries of audio-visual materials, books, and services; and arts-humanities section in the school library; provision for independent study, including film, record, and slide viewing facilities.
5. School and class size:
    a. Should be able to attract and retain competent teachers.
    b. Library and instructional facilities will be needed which a small school cannot usually afford.
    c. A Director of Fine Arts is desirable for staff and program supervision.
    d. "It is not so much the size of the class that matters but the teacher-to-pupil influence that can be established. There must be opportunity and time for the instructor to reach out to the student, establish contact, and help that student to grow both mentally and emotionally."

State Department of Education Leadership

1. There should be a State Supervisor of Fine Arts Education.
2. Each state should provide leadership in the area of the arts-humanities through publications, clinics, workshops, visitations, etc.

Evaluation of the Program

1. Measurable goals can be set forth at each level, goals based on observable student performance, thinking skills and attitudes.
2. Statewide appraisal would give consideration to:
    a. Geographic location of programs (general throughout state).
    b. The factor of size in relation to programs.
    c. Size of classes.
    d. Availability of equipment and facilities.
    e. Type of emphasis, and grade level of emphasis.
    f. Teacher profile.
    g. Undergraduate and graduate teacher training programs in the colleges and universities.

Selected Quotes

"The actual number of arts lovers has grown, but the percentage of the general public that can be termed arts-minded is less than that of 50 years ago."

"All of us . . . spent a decade or more in the school system; why were we not given a love of the arts? That question has produced some chilling answers."

"The arts as found in our schools have had little effect on the general cultural level of this nation."

"There is no 'right' and 'wrong' in humanities, no set amount of subject matter to be covered. There is only the student, whose lifelong commitment to the arts we seek."

"Increasingly (students) need to think for themselves . . . . It (the curriculum and method) shifts the emphasis from rigidly defined, predetermined, teacher-selected materials to student-centered emphasis on increased mental ability and emotional insight."

INDUSTRIAL ARTS

Lester Russell
Associate Professor of Industrial Arts
Peru State College

The Goals of the Industrial Arts Program

The American citizen lives in an industrial and technological society. Through experiences in the industrial arts a student may develop an interest in industry, an appreciation of good design and workmanship, cooperative attitudes, self-realization and initiative, worthy use of leisure time, and a functional use of the skills and knowledge gained in other school subjects. For those students planning to enter industrial occupations after graduation from high school, the courses in industrial arts should provide enough breadth and depth of understanding so the student may acquire the skills and knowledge necessary for entry level into the vocations.

Industrial arts courses should seek to achieve the following basic objectives:

1. Develop in each student an insight into and understanding of industry and its place in our society.
2. Discover and develop student talents in industrial-technical fields.
3. Develop problem-solving abilities related to the materials, processes, and products of industry.
4. Develop in each student skill in the safe use of tools and machines.

The Content of the Industrial Arts Program

In the elementary school, industrial arts is not another subject; rather, it is a method of providing opportunities which will give deeper understandings and meanings to regular subjects from first-hand experience with real materials. Through these experiences a child should develop an understanding of industry and its place in the development of our society.

At the junior high level, the emphasis is on providing exploratory experiences in the following industrial arts subjects: drafting, metalworking, woodworking, electricity-electronics, graphic arts, industrial crafts, and power mechanics. A minimum program would provide at least two semesters of experience in at least four areas for all boys by the end of the eighth grade. An optimum program would provide four semesters of instruction and include a minimum of six different areas. Nine-week or longer units in each of the selected areas at the seventh- and eighth-grade levels should be followed by a minimum of one, and preferably two, semesters of elective courses for both boys and girls in the ninth grade. These should go into greater depth in one or two selected areas of industrial arts where the student shows particular interest, aptitude, and ability.

Courses at the senior high level should be on an elective basis to both boys and girls. The same seven subject areas as mentioned for the junior high would be available. A minimum program would provide the student with a choice of at least one year above the junior high school level in any one or more of at least four areas. An optimum program would include up to two years of advanced work in six of the different subject areas and a maximum program of up to three years in all seven subject areas.

Staffing

The elementary industrial arts program should be taught by the regular classroom teacher. Her preparation should include some instruction in the philosophy, basic skills, and place of industrial arts in the elementary program. A consultant, provided by the administrative district or intermediate unit, would enhance the program by providing leadership, in-service activities, and classroom instruction on special occasions.

At the junior and senior high levels, the industrial arts teacher should have a concentration in industrial arts, in addition to liberal arts and professional education preparation. The industrial arts teacher should not teach in more than two or three different subject areas where advanced courses are offered. It would seem that at least two industrial arts teachers would be necessary for a minimum program, depending upon enrollment and depth of program.

Special consultants could be provided by the administrative district or by the intermediate unit. Overall supervision should be provided at the state level.

Special Facilities and Equipment

Each of the seven areas of the industrial arts program will need special tools, machines, materials, and facilities in order to provide the kinds of experiences needed for boys and girls in an industrial and technological society.

The elementary industrial arts program can be accommodated with special equipment in one area of a self-contained classroom or in a special room for the use of all students.

The limited general shop, with one shop for each area of instruction, is the most desirable kind of shop organization for optimum programs at the secondary level. However, three comprehensive general shops to accommodate the related areas of (1) woodworking and industrial crafts; (2) drafting and graphic arts; and (3) metalworking, power mechanics, and electronics would be adequate in minimal programs.

AN APPRAISAL OF RECENT DEVELOPMENTS IN THE CURRICULUM AND TEACHING OF MATHEMATICS AT THE SECONDARY LEVEL

Milton W. Beckmann
Supervisor of Mathematics and Professor of Secondary Education
University of Nebraska

Common Elements in Modern Programs of Mathematics

1. Teaching students so they will understand the principles of the mathematics which they are working. Learning rules and methods of solving problems without understanding is not enough.
2. The structure of mathematical systems as well as the deductive process by which the structure is built. All areas of elementary and secondary mathematics may be used for this, but variations must be made according to the maturity and previous preparation of the students involved.
3. Showing the students that there are processes of "discovery" and certain creation in mathematics. This again will vary with the maturity of the students, but should add to their understanding and appreciation of the subject as well as to their proficiency in skills and problem solving.

The High School's Dual Responsibility

1. To provide sound mathematical training for our future leaders of science, mathematics, and other learned fields.
2. To ensure mathematical competence for the ordinary affairs of life as part of a general education appropriate for the major portion of the school population.

New Developments to Fulfill the High School's Responsibility

Several interesting programs are in operation for both the non-college aspiring student and the accelerated student. One of the outstanding programs for the non-college aspiring student, which is being financed by a grant of $660,000, is the Oakland County Mathematics Project, near Pontiac, Michigan, directed by David Wells.

Burt Kaufman, director of the Comprehensive School Mathematics Project, Southern Illinois University, and his team, financed by a grant of $800,000 from the U.S. Office of Education, are developing a program which will take high school students through a level of training comparable to three years of top-level college training. A unique feature of the program is individual instruction.

Another new development is the use of mathematical games for all students: Equations, The Game of Creative Mathematics; WIFF N' PROOF, The Game of Modern Logic; and others.

What Doors Will Mathematics Open?

As new mathematical ideas have been created, mathematics has proved of further use to the sciences, the humanities, and even the arts. In music the modern composers are using computers; the farmer is also using the computer to predict corn drying results; the social sciences are using probability and game theory to study politics, crime, and economics; even linguists are using mathematical analysis to study language and literature. Several dramatic examples are: (1) the theoretical mechanical approach to orthodontics (combining engineering and dentistry); (2) the application of the theory and methods developed so highly by engineers in recent years to research involving the heart and circulation (combining engineering and medicine).

We have heard much about the explosion of knowledge. Our century is also witnessing an "implosion" of knowledge. After centuries of increasing specializations, students of various disciplines are beginning the difficult task of communicating with each other again. The programs at Nebraska combining medicine and dentistry with engineering are typical of such interdisciplinary attempts.

Beckmann's Studies

Public school and college personnel and parents are eager to know whether students are more mathematically literate now than they were before they were exposed to the "modern mathematics." The writer did a study in 1951 with 1,296 students and again in 1966 with 1,377 students. The same schools, with the exception of one which no longer existed, were included in the study. **On the basis of this study we can say that students entering the ninth grade in Nebraska schools are much more mathematically literate today than they were 15 years ago.**

Implementing New Developments and New Techniques

1. Salient Facts:
    a. We are the only industrialized country in the world which does not teach calculus to the top 10 to 15 percent of the 17-year-olds.
    b. Approximately 50 percent of the students now entering the University of Nebraska register for Mathematics 114—Analytics and Calculus.
    c. Many colleges, including the Engineering College at the University of Nebraska, do not offer credit for algebra and trigonometry in college.
2. The facts in (1) above would indicate that for an up-to-date mathematics program it would be necessary to offer the Advanced Placement Program, which would need an enrollment of 300 to 500 students. The Commission of Mathematics of the College Entrance Board feels that only a small percentage of the teachers of mathematics could teach the twelfth-grade course which includes calculus.

3. Teachers of low achievers need to develop special techniques of teaching, which require additional training.
4. It would appear that the school would need an enrollment of at least 250 students to provide programs for low achievers.
5. To accommodate students of varied abilities, the high school of 500 or more pupils should provide at least two tracks in mathematics, and in some cases three or four tracks. The sequential courses should be reserved for those pupils who, having the requisite ability, desire or need such work. New and better courses should be provided in the high schools for a large part of the school's population whose mathematical needs are not met well in the sequential courses.
6. A school should provide transits, slide rules, computers, and many other devices. Unless the enrollment is 500, the cost per pupil would be rather expensive for providing a first-class mathematics laboratory.
7. The responsibilities of mathematics supervisors have greatly increased due to expanding curriculums, the large number of inexperienced teachers, new teaching and learning aids, the great variety of textbooks, new methods of teaching, and a greater need to interpret programs to the public.

PHYSICAL EDUCATION

Carl Wear
Department of Physical Education for Men
University of Nebraska

The Goals of the Physical Education Program

Physical education is that part of the school program which seeks to achieve some of the important objectives of education through the use of physical activities, such as games, sports, contests, stunts, rhythmics, and aquatics. It is a way of education through the physical as well as a way of education of the physical.

Boys and girls need frequent vigorous physical exercise and selected activities for:

1. Optimal physical growth and development of the bones, muscles, heart, lungs, blood vessels, and other body organs.
2. The development of good posture and the fundamental motor skills of walking, running, jumping, and throwing.
3. The development of the strength, endurance, agility, and coordination which are necessary for the performance of the fundamental motor skills.
4. Learning to play and perform to a satisfying degree, as play is important in the lives of young people. **It is natural for children to want to play, but it is not natural for them to know how to play.**
5. The development of a few sport skills, particularly individual and dual sports, for leisure time use now and in later life.
6. Developing an interest in physical activity which will serve as a motivation to follow good health practices.
7. Developing poise and self-confidence, which in turn contribute to emotional stability, a favorable self-concept, and security.

The Content of the Physical Education Program

Study and activities selected for the physical education program should be designed to achieve to a maximum the goals listed above. The program should be provided from kindergarten through grade twelve, and the instruction should go far beyond the common team sports. It should cover a wide range of individual and dual activities, such as aquatics, archery, gymnastics, stunts, tumbling, apparatus and balancing. It should continuously relate to good health practices and social and emotional development.

Staffing

1. The program should be under the direction of teachers who are qualified through training and interest to conduct a program that is medically safe, emotionally sane and wholesome, and educationally sound.

2. At the lower elementary level a specialist in physical education should be available in the capacity of a helping-teacher or supervisor if the classroom teacher is assigned the physical education teaching responsibility.
3. A physical education specialist should be assigned to provide the physical education instruction at the upper elementary level.
4. At the junior and senior high school levels a teacher with an undergraduate major in physical education should be assigned to provide the instruction. The girls' instruction should be under the direction of a woman and the boys' instruction under a man.

Special Equipment and Facilities

1. At the secondary level the gymnasium should be enough to accommodate two separate physical education classrooms, one for boys and one for girls.
2. Adequate dressing and shower facilities, separate for boys and girls.
3. Minimum equipment needs at the junior-senior high school level are four 5′ by 10′ mats; a horizontal bar; a horizontal ladder; a climbing rope; a set of parallel bars; a balance beam; equipment for archery, badminton, basketball, gymnasium bowling, golf, football, handball, soccer, table tennis, tennis, softball, and volleyball; and a phonograph and records.
4. Minimum equipment needs for the elementary school in addition to any of the above are balls and outdoor horizontal ladders and climbers.
5. Outdoor space of from 7 to 15 acres for junior high school and 10 to 40 acres for senior high school.
6. Either a swimming pool in the school or a community pool for summer school use.

AN OPTIMUM K-12 READING PROGRAM AND SCHOOL DISTRICT ORGANIZATION

Cecil Kipling, Jr., Professor of Education
University of South Dakota

Needs to be Met

1. The "knowledge explosion" in the world today presents increasing demands that its citizens be able to read with understanding, insight, and critical analysis.
2. An instructional program in reading must be provided K-12.
3. Every child has a right to an instructional program in reading which is designed to:
   a. Allow him to develop his reading potential to the maximum.
   b. Enable him to meet the immediate objectives of his formal education.
   c. Achieve the broader goals of a lifetime of reading.

Recommendations, K-12

There must be a program of reading based upon sound philosophy and research.

- –Children will be taught at levels at which they can read successfully.
- –Classrooms are organized so the teacher can teach effectively.
- –A variety of materials and equipment is used.
- –Adequate attention is given to sequential skill development.
- –Subject matter teachers teach the special vocabulary and reading skills related to their subjects.
- –Junior and senior high schools continue the systematic program of skill building begun in the elementary grades.
- –Children not only learn the skills of reading but also learn to enjoy reading.
- –Children with extreme disabilities as well as the superior readers are adequately provided for.
- –Individual records are maintained and are passed on to the next teacher.
- –Parents are considered as part of the team and are kept informed about the reading program.

There must be a staff adequately prepared to carry out the program.

- –Elementary teachers have a minimum of six semester hours in accredited reading courses.
- –Secondary teachers who are primarily responsible for developmental reading have at least one course in the area of reading.

- All teachers of the content fields assume responsibility for teaching reading skills necessary for success in that subject. Training of these teachers may require an in-service program.
- Reading specialist must have a Master's degree with a major emphasis in reading. Specialists must be available to teach remedial reading, supervise reading laboratories, and conduct in-service programs.
- Consultant-professors with advanced training in reading could be employed jointly by public schools and institutions for higher education for pre-service and in-service training of classroom teachers and reading specialists.

There must be an organizational pattern that will permit the staff to function most effectively.

Every elementary attendance center should provide:
- developmental reading instruction for all
- a reading specialist to work with students in remedial reading outside the classroom
- a variety of instructional materials
- a room library to meet the immediate interests of students
- a central library to meet the wide range of interests and abilities

Every secondary attendance center should provide:
- developmental reading for all sixth-, seventh-, and eighth-grade students and those in grades 9-12 who can profit from such instruction
- adequate instruction in reading skills peculiar to each academic area
- a reading laboratory for remedial and power reading instruction

Every administrative district should provide:
- a reading specialist to coordinate all reading programs
- an in-service program to keep all teachers abreast of new research and instructional materials
- a central distribution point for reading tests, materials, and equipment
- an adequate testing program
- action research in reading in each attendance center

Every intermediate center should provide:
- consultant service to reading specialists on the staffs of administrative districts in the area
- psychological services not provided by the administrative districts
- reading clinic services not provided for by smaller administrative districts
- stimulation for innovation in the area of reading instruction

Every state department of public instruction should provide:
- a reading specialist to coordinate all the activities related to reading within the state
- psychological services not adequately provided for by other administrative units
- direction and coordination of research and dissemination of information

The U.S. Office of Education should provide:

- stimulation of basic research that will lead to continued improvement in reading instruction
- institutes and fellowship programs for the preparation of reading teachers and specialists
- continued support of Title I projects for the educationally deprived
- help in establishing and financing of reading clinics in sparsely populated and economically deprived areas

Implications for District Organization (Project Staff)

Implementation of the above recommended program at an acceptable level of quality with economy of operation will require:

1. Elementary attendance centers with two or more sections per grade.
2. High school attendance centers of 1,000 pupils.
3. An administrative district of 5,000 to 10,000 or more.
4. An intermediate center (or administrative district) of 35,000 to 50,000 or more.

Selected Quotes

"Every teacher in the school system from kindergarten through twelfth grade must of necessity be a teacher of reading."

"Children must be taught at levels at which they can read successfully."

"A child with an IQ of 80 should not be expected to make as much progress as a child with an IQ of 120."

"The most significant factor is that each teacher must be aware that these differences exist and that he must provide differentiated reading skills related to their subjects."

"Children not only learn the skills of reading but also learn to enjoy reading."

"The program provides adequately for children with extreme disability and for the superior reader."

"Every attendance center should have access to reading specialists."

SOCIAL STUDIES

Willis Moreland
Department of Secondary Education
University of Nebraska

Goals of the Social Studies Program

General goal: educating for citizenship. The following aspects should be given particular attention:

1. Skill in the use of rational decision making as a means of approaching the solution of personal as well as social conflicts.
2. An understanding of and commitment to the values of a democratic society.
3. The potential of each individual for development a favorable self-concept which will enable him to become a constructive member of society.
4. The ability to work effectively with others as a means of solving personal as well as social problems.
5. Knowledge and ability to participate effectively in the governing process.

The Content of the Social Studies program

A basic coordinated program should be provided for all students from kindergarten through the twelfth grade, with variations for differences in ability and interests. The content of the program should be drawn from history, economics, sociology, anthropology, geography, and political science. The program should be required from kindergarten through grade nine and elective from grades ten through twelve.

Staffing

1. A school staff large enough to permit at least one teacher in each grade to have a major portion of her time devoted to social studies instruction.
2. A secondary staff large enough that at least one teacher has preparation in depth in each of the social studies areas.
3. A minimum of a one-half time social studies coordinator. One person designated as coordinator of the social studies program should have a minimum of one-half of each teaching day to provide leadership in social studies curriculum and instruction.
4. A school staff with sufficient variety of competence, background, and preparation to direct the elective program in depth for college-bound students and in breadth for those students for whom high school is terminal.

Special Materials and Equipment

1. A professional library for the teaching staff.
2. A library sufficiently large and varied to enable all students to explore a wide range of social studies materials, including audio-visual equipment and materials.
3. Current periodical literature available for all students and specially prepared current events newspapers for each elementary student.
4. Each social studies classroom organized around a laboratory concept, with appropriate materials available in the classroom.

Implications for Educational Organization (Project Staff)

Experience indicates that a school system, grades K-12, should have an enrollment of pupils for optimum achievement of the proposed guidelines for staffing and for the provision of the special materials and equipment recommended above, and that the enrollment should not be less than ????? pupils for achieving minimal standards at an acceptable level of quality, with acceptable efficiency of organization and economy of operation.

SPEECH EDUCATION

John H. Thurber
Department of Speech
University of Nebraska

The Goals of the Speech Program

The educational objectives of any school system are social in nature. The learning of the student in the K through 12 school system should have as its ultimate aim the production of a mature human being who is able to relate effectively to other human beings and to interact with them in achieving an orderly progress of our society.

Speech training contributes to the overall goals of education by assisting students, through knowledge of and experience in the principles and methods of the various speech areas, to operate more effectively as communication agents in all speaking situations. Specifically, speech training contributes to the student's feeling of security in, and personal adjustment to, his role of communicator. Speech also helps the student to understand and accept his responsibility as an oral communicator in our society, and it assists him in improving his ability to comprehend, analyze, criticize, and pass judgment on the communication of others—to become a better listener and a more critical thinker.

The Content of the Speech Program

The elementary speech program should be taught through integration with the pupil's total educational experience. Specific speech experiences, including storytelling, creative dramatics, oral presentations, choral speaking, oral reading, plays, and group discussions should be integrated into the elementary program.

The junior high speech program should offer a semester of creative dramatics, two semesters of dramatics, and two semesters of fundamentals of speech. A semester of creative dramatics and a semester of fundamentals of speech should be required of each student.

The program at the senior high level should include a semester of instruction in discussion and argumentation, dramatics, advanced dramatics, oral interpretation, debate, and two semesters of public speaking. Two semesters of public speaking and one semester of discussion and argumentation should be required for every student.

An extra-curricular program of interscholastic speech contest work, debate, three full-length plays a year, and a readers' theater program should be made available.

Staffing

Elementary: All elementary teachers should have one course in "Speech for the Classroom Teacher" and one course in "Creative Dramatics" in their preparation program. The staff of the district should also include a speech coordinator for the elementary schools to work with the teachers in planning and executing directed speech experiences and to serve as a resource person.

Senior high school: A minimum of two full-time speech teachers, each with a major in speech education, one with an emphasis in public speaking and debate and one with an emphasis in dramatic arts.

Special Facilities and Equipment

1. Facilities for play production in each junior and senior high school attendance center.
2. A slightly raised platform in front of each speech classroom.
3. A lectern and audio-recording equipment in each speech classroom.

VOCATIONAL-TECHNICAL EDUCATION AND SCHOOL DISTRICT ORGANIZATION

**Byrl Shoemaker, Past President, American Vocational Association
and Director, Division of Vocational Education
The State Department of Education, Columbus, Ohio**

Growth in V. E. Programs

—1963—4,217,198 youth and adults were enrolled in V. E. programs.

—1967—7,000,000 youth and adults were enrolled in V. E. programs.

—Further growth of vocational education is predicted on the basis of the continuation of our technological evolution and the interest throughout the nation in overcoming some of the social problems.

Vocational Education

—The primary purpose is to equip persons for useful employment.

—The program is designed to serve the needs of youth for occupational entry, and adults for advancement or retraining.

—V. E. helps to give definite purpose and meaning to education by relating it to occupational goals.

—V. E. provides the technical knowledge and work skills necessary for employment, including abilities, attitudes, work habits, and appreciations which contribute to a satisfying and productive life.

—V. E. helps fulfill the general educational needs of youth in promoting attitudes of citizenship, respect for others, and acceptance of responsibilities.

—V. E. recognizes that the American worker should be competent—economically, socially, emotionally, physically, and in a civic sense.

Technical Education

—T. E. is concerned with design, development, testing, supervision, or mid-management functions.

—Paraprofessional people trained through T. E. enable the professional person to work at his highest level of educational training by providing supportive services.

—The technician enables the skilled worker to function effectively and economically through the coordinative and interpretative functions he serves between the professional and the skilled worker.

Areas of Vocational Education

—Agriculture: agricultural production, management and leadership, horticulture, mechanics, related occupations.

—Home Economics: personal and family relationships, home management, consumer competence and responsibility, care and guidance of children, selection and care of the house and its furnishings, clothing for individuals of the family, food for the family, and jobs related to this training.

—Business and Office Education: bookkeeping, clerical, office machines, data processing, secretarial, and stenographic.

—Distributive Education: retailing, wholesaling, service.

—Trade and Industrial Education: machine trades, auto mechanics, basic electricity and electronics, mechanical drafting, printing, welding, sheet metal, bricklaying, carpentry, plumbing, cosmetology, dental assistant, and other like areas.

Size and Quality Programs

Enrollment of vocational pupils: minimum—450–580; optimum—1,350–1,740

Enrollment of district, K-12, to provide above vocational pupils:
minimum—11,000–14,000; optimum—32,000–42,800

The per pupil operating cost factor decreases from $519 with a V. E. enrollment of 408, to $480 with an enrollment of 1,000. Cost savings are negligible with enrollments in excess of 1,000.

Possible Organization Patterns

Vocational Education:

—A series of vocational high schools (metropolitan area), with broad programs corresponding to the needs of the students, with the district high schools providing limited vocational education programs.

—Vocational education service centers offering vocational programs and enrolling students from a number of district high schools in the eleventh and twelfth years, or the last two years of a student's school career.

—A vocational education service center combined with one of the district schools of the school system.

—Offer some vocational programs in each district high school, with enrollment of students in these high schools (area vocational schools) on a full-time basis determined by their interests, goals and abilities.

Post-High School Technical Education:

—A technical education center functioning in cooperation with an area vocational education center, both administered by one authority with one tax base for both.

—Separate technical institutes organized to provide for post-high school technical education.

—Community colleges providing technical education programs, with or without college credit toward the baccalaureate degree.

—The university branches offering technical education programs (legally possible in some states).

—Colleges and universities (some as university branches).

Note: The position paper identifies the strengths and limitations of each of the above organizational patterns.

Recommendations

1. Vocational and technical education are essential parts of the modern curriculum for public education.
2. Public education has a responsibility for and an obligation to vocational education for high school youth, out-of-school youth, and adults, in terms of preparatory training, retraining, and upgrading instruction for employed workers.
3. The needs of youth and adults for vocational education suggest that a minimum scope of programs requires an enrollment of approximately 500 youth in a center for vocational education. A desirable program of vocational education can be reached with an enrollment of 1,300.
4. Planning for vocational education must recognize the need for continuing education for out-of-school youth and adults.
5. Large cities of 200,000 or more normally have an adequate tax base and student base to provide for a comprehensive vocational education program. Several options are available to large cities in terms of adequate organization for vocational education, but the pattern selected must provide for comprehensiveness of the vocational program in keeping with the nature of the students and the community, and for continuing services to out-of-school youth and adults.
6. Most suburban and rural communities do not have an adequate student base or tax base to provide for vocational education unless such districts join together to provide a student base and tax base sufficient to support a comprehensive vocational program.
7. In some sparsely populated areas, it will be impossible to provide a vocational program of even minimum comprehensiveness at the high school level due to the great distances between the school districts involved. In such cases, residential programs must be considered, either on a high school basis or on a post-high school basis, for both vocational and technical education.
8. Needs of out-of-school youth and adults for technical education and the needs of business and industry for graduates of such programs suggest a minimum enrollment of 500 post-high school technical students in order to achieve a program of minimum scope.
9. Vocational and technical education programs are sound educational programs planned to serve the needs of people and of business and industry, and deserve the full support of people concerned with the modernization of the educational program throughout the nation.

VOCATIONAL EDUCATION: THE BRIDGE BETWEEN MAN AND HIS WORK

Edwin H. Parrish
Assistant Superintendent of Schools
Department of Vocational and Adult Education
Omaha Public Schools

The Goals of the Vocational Education Program

The program of vocational education represents one of man's organized methods of learning to work. Education must provide programs which foster a society that knows how to live and earn a living.

The Content of the Vocational Education Program

Vocational instruction includes training or retraining for those preparing to enter a recognized occupation upon the completion of instruction and for those who have already entered an occupation but desire to upgrade or update their occupational skills and knowledge in order to achieve stability or advancement in employment. This includes useful employment in an occupation involving knowledge and skills of home economics subjects.

Career Development Education has the ultimate goal of making possible the earning of a living. A college preparatory program may have this goal for the professions, while vocational education provides basic occupational skills and understandings.

All high schools, as comprehensive, must offer both the college preparatory program and vocational education. Any comprehensive high school too small to offer both programs is too small to exist as a school.

Staffing

The teacher is the nucleus of the instructional program. The vocational education teacher in the secondary school must represent a combination of many qualities. He must understand the principles of learning and teaching, know the workings of business and industry, foresee technical changes, and have the ability to develop salable skills within the student. The practical approach to vocational guidance is a concomitant to these other instructional skills.

The background of experience and education of the vocational education instructional staff must be varied. In order to meet a specific need within a related instruction program for vocational education, no one segment of the teachers can be utilized for instructional purposes. It is necessary to match the type of teacher with the desired goals of the course.

Special Equipment and Facilities

Programs of vocational education cannot function in a vacuum. The school plant for vocational education and the manner in which it is equipped is of importance for all levels of occupational education.

The major purpose of the vocational education area is to provide the facilities that will allow the school to offer the program to meet the needs of youth in terms of business and industry. These needs would include the common elements basic to all skilled occupations and the specialization possible within a school. The school plant planning for vocational education areas should include:

1. Areas for multiple school use, offering accessibility for adult continuing education.
2. Flexibility for meeting new vocational needs.
3. Provisions for the broad base or cluster of occupations approach.
4. An environment that represents the world of business and industry.

PART IV

EDUCATIONAL SERVICES

STRUCTURING EDUCATION FOR BUSINESS MANAGEMENT

Robert L. Whitt, Professor of Education
College of Education
Drake University

Statement of Problem

1. To propose criteria and guidelines for establishment of school districts which would make possible efficient and effective school business management with economy of operation.
2. To give consideration to optimum and minimum criteria for varying geographic factors.

School Business Management

1. Abbreviated list of areas relevant to business management:
    - —Personnel administration
    - —Office management
    - —Accounting
    - —Budget making
    - —School building construction and planning
    - —School building operation
    - —School building maintenance
    - —Purchasing
    - —Cafeteria management
    - —Transportation
    - —Insurance
    - —School surveys and population studies
    - —School law

MODEL FOR SCHOOL BUSINESS ADMINISTRATION SERVICES AT VARIOUS LEVELS TO PROVIDE ECONOMY AND EFFECTIVENESS WITH EFFICIENCY.

LOCAL ATTENDANCE CENTER

K-6	300 to 500 plus students
Jr. High	300 to 500 plus students
Sr. High	450 to 1800 plus students

A Service Receiving Role that Includes:

—Certificated personnel
—Office management assistance
—Assistance in budget making
—Budget control procedures
—Assistance in building operations
—Assistance in building maintenance
—Assistance in purchasing
—Assistance in food services
—Assistance in transportation

DISTRICT OR ADMINISTRATIVE UNIT

1,500 to 2,000	Minimum
5,000 to 10,000	Desirable
10,000 to 30,000	Optimum
50,000	Maximum

A Service-Providing and Supportive Role to Local Attendance Center that Includes:

- —Administrative leadership
- —Fund accounting
- —Office procedures and standards
- —School plant planning
- —Cafeteria management and food preparation
- —Purchasing
- —Transportation
- —Maintenance
- —Operations, supervision, etc.
- —School activity accounting
- —Data processing

AREA OR INTERMEDIATE ADMINISTRATIVE UNIT

15,000 to 30,000	minimum
30,000 to 50,000	optimum
50,000 to 100,000	maximum

A Service-Providing and Supportive Role to the District or Administrative Unit that Includes:

- —General functions
- —Maintenance
- —Purchasing
- —Transportation
- —Data processing
- —Research and development

INTER-AREA COOPERATIVE UNITS (REGIONAL)

250,000 students optimum

A Service-Providing and Supportive Role to the Intermediate District, the Local or Administrative Unit that Includes:

- —Data processing and computer operation
- —School plant planning and building programs
- —Research and development

STATE ADMINISTRATIVE UNIT

A Service-Providing Role to all Districts to Include:

- —Insurance
- —Bus purchases and supervision of safety standards
- —Data processing and computer operation
- —Research and development

MULTI-STATE UNITS

A Service-Providing Role to States and all Districts that Include:

- —Data processing and computer operation
- —Research and development
- —Data banks

ELECTRONIC DATA PROCESSING IN EDUCATION

Ralph D. Purdy
Director, Great Plains School District
Organization Project

Fantastic Claims of the Proponents

- Electronic Data Processing (EDP) may have more influence on the world than the invention of the wheel and the printing press, or the industrial revolution.
- The computer will have greater impact upon education than the textbook.
- Computers will not only shape what goes on in the classroom but also will plan the building where learning takes place.
- The computer automatically selects questions which point up the student's weak points and prescribes study materials to strengthen these weak points.
- In the future computer terminals will be as common as TV sets today.
- The high school that ignores the impact of computers is obsolete.

Historical Development

- The first computer was invented in 1944.
- In 1956 there were fewer than 1,000 computers.
- By 1966 there were over 30,000 computer systems in the United States and over 10,000 international installations.
- Industry and the federal government have adopted computers at a faster rate than has public education. In 1961 less than 1 in 20 school systems were employing some form of EDP.
- It is estimated that there will be from 85,000 to 100,000 computers in the United States by 1975.

Areas for EDP Utilization

- The Midwestern States Educational Information Project (13 states) proposes the following:
  - The pressing demand for adequate, accurate, and timely educational information is, perhaps, one of the most crucial needs in the administrative guidance and development of today's modern educational program.
  - New academic knowledge is unfolding in all disciplines at an unprecedented rate, thus challenging and even demanding educators to adopt pace-keeping programs and learning techniques for educating today's youth.

—State sub-systems capable of being integrated within the total educational information system, and with compatability among all states, are proposed and are being developed in the following areas:

  Facilities
  Finances
  Instructional programs
  Staff personnel
  Pupil personnel

—The state's role may be defined as:

  a. Planning and development—research; consultation; public relations; in-service education.
  b. Regulatory function—Establishment of minimum standards; enforcement of approval and accreditation; disbursement, distribution, and allocation to approved programs.
  c. Operational function—centralized services to individuals; services too broad, expensive, or technical for local districts; internal management; records; statistics.
  d. Management—SEA's should plan for complete management information systems.

- Metropolitan Intermediate Unit Superintendents visualize the following areas for EDP utilization (Oklahoma City, 9-30-67):

—Curriculum and program
—Staff personnel
—Pupil personnel
—Finance
—Facilities
—Business administration
—Computerized instruction (Experimental)
—Research
—Data Bank
—Compatability with:
  —Colleges and universities
  —Public finance
  —Public administration

- Most computer-related projects fall into six categories, none of which are mutually exclusive ("Computers in Education," **American Education,** United States Department of Health, Education, and Welfare Office of Education, November, 1967, p. 24):

1. Computer-assisted instruction.
2. Programming for specialized data development and analysis—the application of new computer programs to generate otherwise inaccessible data and perform analysis and translation uniquely practical by computer.
3. Computer models and simulation—the use of computers to project and test theories in educational research and statistics and to test alternatives for decision-making in real life situations.
4. Data banks and information retrieval systems.
5. Computers in administration and organization—uses of the computer in educational planning and management at all levels.
6. Curriculum and training for computer application—development of curriculum and establishment of training programs to aid educators and researchers in making use of computer technology.

Computer-Assisted Instruction (CAI)

- CAI is a technology that assists in providing an individualized learning environment for each student. Instructional programs are developed (software) and stored in the computer (hardware). The student, with a table or desk terminal, is able to tap the storehouse of knowledge in the computer. The hardware may be located in the next room, or it may be several miles away with contact being made over telephone wires. The software may include a very broad range of content material in various disciplines or subject matter areas. It may be programmed for very simple drill exercises or very complex tutorial-types of learning experiences.
- Proponents for CAI claim that:
  - CAI will bring about very dramatic changes in the educational and instructional programs within the next ten years.
  - As much material is learned and retained by CAI as by conventional methods.
  - There are no known limits to the range of courses that can be computerized.
  - Students are interested in and like CAI.
  - Learners can be brought to a superior performance on standardized tests.
  - The computer can enrich and motivate the learning process.
  - Materials have been developed and are available for computer courses.
  - It is a private system in which the student proceeds at his own speed. He can repeat, advance, or review according to his own needs.
  - It takes away from the teacher the drudgery of rote teaching.
  - The teacher is then free to serve as a diagnostician and to give extended help to those who may be having problems.
  - It increases the capability of the student to learn.
- CAI is adapted for a wide range of instructional programs, including:
  - Simple drills and exercises.
  - Simulation.
  - Problem solving.
  - Full tutorial programs.
- Current trends for CAI include the following:
  - Substantial sums of money are being expended for CAI development.
  - Educational and industrial firms are committing substantial sums of money for CAI expansion and development.
  - Research in CAI is expanding. Example: The Stanford-Brentwood Computor-Assisted Instruction Laboratory in California, using the Brentwood elementary school in East Palo Alto as the experimental base for program development. The purpose is to investigate CAI over a period of time, using 16 student terminals, an audio system, picture projector, a typewriter keyboard, and related electronic accessories.
- Some comments about CAI
  - The potential as an educational aid in the hands of a well trained teacher appears to be unlimited.
  - The computer is an aid to the learning process, but will undoubtedly

remain as an aid rather than displace or replace the teacher.

- —CAI may be the tool for facilitating a remarkable advancement in individualized instruction.
- —Caution needs to be exercised in a too rapid adoption of CAI. Faddism must be resisted; legitimate research and experimentation should be encouraged.
- —There appears to be a logical progression in CAI development. It results from the need to prepare teachers to use CAI and to write CAI course materials.
- —There is a progression in the levels of knowledge and understanding required to utilize the software and hardware in EDP. Only the rudiments are essential for problem solving, with more for simulation and gaming, drill and exercise, and the most for full tutorial CAI.

Some Limitations

- The state of the art is still rudimentary. The most significant developments lie ahead.
- The hardware is in a much more advanced state than the software.
- There is a need to have clear ideas as to what a computer can do best, and then to have these programs put into the computer.
- Nobody in education knows enough empirically about what really goes on in the classroom to conceptualize the software for the hardware.
- Lack of trained personnel in the computer field is a serious limitation.
- Lack of training on the part of teachers and administrators limits implementation of available programs.
- Lack of training in EDP by the colleges and universities delays adaptation to and utilization of EDP.
- Standardization of forms and reports results in a locked-in approach and inflexibility in data utilization.
- The machine derives its potentialities from man himself. Men (teachers and administrators) have not mastered the state of the art; understanding and mastery remains for the future.
- There is no accepted standardization for data processing at the national, state, regional, or local levels.
- Many computer applications have been developed on a single system basis, such as accounting records, test scoring, grade reporting, etc. Increased effort must be given to the development of an integrated data processing system. Bits of information should not be ends in themselves, but related to many other types of data available through the computer for the understanding of relationships between many different kinds of information.
- The present system of school district organization does not lend itself to the optimum utilization or development of EDP.
- Lack of adequate long range planning before operations begin.

Potentials for the Future

- EDP may become a mainstay for greatly expanded and highly developed individualized instruction programs.

- Relevant data will be almost instantaneously available to legislators, policymakers, and planners concerning finance, buildings, staff statistics, pupil personnel data, and all related aspects of educational planning, development, and management.
- Almost all routine paper work and data reporting by attendance centers and local school districts will be made via computer to the area educational agency, to the state, and to the federal government. Local, state, and national statistical reports will become available in the year in which they were produced, not one, two, or three years later.
- Long-range goals:
  - —Terminals in homes (Experimental in New York and California).
  - —Computer controlled T.V. education (Brooklyn Archdiocese).
  - —Systems analysis—operational research (Seattle).
  - —PPBS (Project Planning Budget Systems).
  - —Simulation (Demographic; resource allocation).
  - —Computer enhanced instructional control.
  - —Sophistical information retrieval.
  - —Vocational-technical programs (Arkansas; North Carolina).
  - —Full tutorial CAI (If relevancy is proven).
  - —Guidance-counseling support systems (Ohio, Harvard, Louisiana).
- EDP has a major problem solving capability.
- A network of terminals connected to a central computer by some electronic means might possibly bring a variety of learning experiences to students in remote areas.
- It is possible that within the next ten years many children will use individualized drill-and-practice CAI systems in elementary schools, and a full tutorial system at the high school level.
- "The most promising channels for research and development in educational EDP lie in determining those basic items of information which might constitute cooperative data processing systems, in standardizing nomenclature and definitions, in providing for system and subsystem compatibility, in resolving the interface problems between educational processes and technological process (including the training of personnel to effect this interface), in investigating the potentiality of automation as an aid to educational innovation and experimentation, in studying and effecting instructional decision, and in demonstrating tested procedures which might serve as models."*
- The construct of the general systems design should be such that data items can be added or deleted without description or major redesign of the system.
- Use of EDP for problem solving is being rapidly accepted at the present time. Full tutorial CAI may move from research to operational status by 1975.

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*John I. Goolad, John G. Caffrey, John F. O'Toole, Louise L. Tyler, **Application of Electronic Data Processing Methods in Education.** Department of Education, University of California (Los Angeles, 1965), p. 47.

- Project O.T.I.S. in Oregon holds much potential for determination of the direction in the utilization of EDP on a district and statewide basis.

Finance

- A large pupil base is essential in order to provide EDP at a reasonable and defensible per pupil cost.
- An IBM System 360 (Model 40) will cost from $700,000 to more than $1,000,000 to purchase. Expenditures for personnel, supplies, space, etc., may exceed this figure by 200 percent.
- Some cost estimates suggest $25,000 annually for small school districts to more than $1,000,000 for large districts.
- Line costs are a major factor to be given consideration.
- Experience suggests that a probable EDP per pupil cost range is from five to eight dollars.
- Some experienced personnel in the field who visualize a greatly and rapidly expanding EDP system suggest that the above estimates may be increased two, three, and even four times within the next ten years.
- At the current time a teleprocessed system providing a reasonable data base, user flexibility, problem solving, CAI drill and exercise, and administrative applications could run as high as $15 per student for 150,000 students.

EDP and School District Organization

- One computer center can serve very large areas within a state, or even the entire state.
- One proponent defends the proposition that one computer would serve all school districts within a radius of 100 miles.
- The literature seems to indicate that one EDP installation should serve on a multi-district basis and a multi-county area, and for a student population base in excess of 100,000 pupils.
- Minimum recommendations indicate a service area of 60,000 to 100,000 pupils, while some centers are serving several hundred thousand pupils.
- Those working closely with EDP indicate that the figure of 100,000 pupils for a reasonable data base is an estimate which must be viewed with more and more skepticism. Such estimates, they indicate, are based upon administrative services of a very basic type; the addition of teleprocessed time-sharing problem solving, drill exercise, information retrieval, report and extract, etc., have not been included in determining the combination of services and equipment.
- The main frame of a sophisticated computer can be located in an area educational service agency with in-put and out-put terminals in each district and in each building. The storage of data for information systems can be coded to guarantee access to any one school.
- In some states the main frame might be a statewide operation.
- The terminal hardware and the process applications would be a local school district operation.

SCHOOL MEDIA PROGRAMS

Billy O. Robertson
Coordinator of Library Services
Lincoln Public Schools

The Goals of the School Media Program

The objectives of school media programs and those of quality education are similar. Both seek to guide students in becoming responsible citizens in a democracy. The aims of both must be met if the democratic way of life is to remain vital and enduring.

School media programs should aid in achieving the following objectives of quality education:

1. To provide resource materials and services that will enable teachers to implement an instructional program geared to the individual and group needs of students.
2. To assist, train, and counsel teachers and students in the appropriate use of all types of media.
3. To help students become independent and discriminating users of information.
4. To contribute to the growth of students in independent thinking, in ability to study effectively, and in desirable attitudes toward learning and research.
5. To introduce students to other sources of information such as community libraries, museums, etc., and to cooperate with these agencies in their efforts to encourage continuing education and cultural growth.
6. To assist students in learning how to discover and present information.
7. To aid students in acquiring a self-satisfaction in learning.

The Scope of the School Media Program

School media programs are essential for today's schools because educational programs are placing emphasis on learners as individuals. School media services may be categorized into five general areas:

1. Consultation—advisory in nature and includes guidance in reading, listening, and viewing.
2. Utilization—includes the procurement, classification, and/or cataloging of school media, instruction in the use of media, and at times the location of specific information for the user.
3. Production—involves the creation, design, and preparation of instructional resources.
4. Research—concerns innovation and experimentation for improvement of school media programs.
5. Technical—nonprofessional in nature and includes the mechanical production and reproduction of media, the clerical processing or preparation of media for use, and the maintenance of equipment and facilities.

The Organization for School Media Programs

The focal point for school media programs is the attendance center. An integrated program of print and nonprint services under the administration of a media generalist with the assistance of media specialists serves best the instructional needs of the attendance center. This may be accomplished through services available at the following levels of school organization:

1. The **school district** media organization is primarily a service agency for the attendance center. A school media director, or media generalist, should be assigned the general responsibility for coordinating the total media program in the school district. Services of this level include: evaluation, improvement, and selection of materials; budgeting; inservice for teachers regarding the school media program; centralized or commercial processing of all school media; and acting as a liaison between the schools and other agencies or centers.
2. The **intermediate unit** media organization is primarily an agency exerting leadership for school districts. Various facets of good school media services are demonstrated to school districts. As these services are duplicated by the school districts, new areas are explored. The stimuli for innovation and experimentation should originate at this level. School media that are either too expensive or too infrequently used in school districts to justify local acquisition would be included in these centers. The application of technology to information retrieval is mandatory at this level.
3. **Colleges and universities** could provide an intra-state level of organization providing media services. One of the primary functions at this level is to serve as a resource to the schools in teacher education, specialist and generalist training, research, and consultation.
4. **The State Department of Education** should provide leadership through consultants; through publication of research, statistical studies, practical guides and handbooks; through establishment of standards for school media programs; and through certification of personnel.
5. A **regional center** covering several states could be organized to promote innovation and research, and to encourage interloan of media among regional centers through the nation.

Staffing

It is recommended that one professional person for each 250 students up to the first 1,000 be provided at each attendance center. Another professional for each 300 additional students is recommended.

In addition, one media aide for each professional should be provided, and as many technicians as are needed to support the program of the school.

At the school district level a school media director, or media generalist, should be assigned the general responsibility for coordinating the total media program. In addition, the following staff members should be considered in carrying out the function of the school district media organization:

1. **School media director–coordinate and administer the district school media program.**
2. **School media specialists–assume responsibilities in staffing and administering such areas of district media programs as professional and curriculum collections, nonprint media collections, and special resource depositories. Each would have competencies in his special area.**
3. **Curriculum media specialists–serve the professional needs of the instructional staff by making available collections of school media related to education.**
4. **Catalogers–classify and catalog school media in a standard and uniform system of information retrieval.**
5. **School media consultants–work with attendance centers in a continuing program of experimentation, evaluation, and improvement of school media programs.**
6. **Acquisitions specialists–supervise procurement and processing of school media.**
7. **In-service specialists–plan for and help conduct in-service activities for teachers in the use of school media to improve instruction.**
8. **Graphic artists–work with staff in the design and production of teaching aids.**
9. **Television specialists–work with the instructional staff in implementing ETV and relating television to classroom teaching.**

FOOD SERVICES

By Vern Carpenter
School Lunch Consultant-Auditor
Iowa Department of Public Instruction

A comprehensive school food service program should include:

- —a breakfast program
- —a lunch program
- —a milk program
- —special-assistance breakfast, lunch, and milk programs in needy schools
- —nonfood assistance programs (money to help schools buy equipment)
- —the government commodity program.

A hungry child cannot do his best in school—much has been written about this fact. One assistant superintendent in a large city in Iowa said, "Nothing is to be gained from having a hungry child sit down at an expensive teaching machine because he will not learn. He is hungry."

In Iowa's public schools, as is true in most states, so far as the school lunch program is concerned, the HAVES have it and the HAVE-NOTS have not it.

In Iowa's 19 largest city school districts, only two districts have lunches available in every school building—Cedar Rapids and Mason City. Pupil enrollment in these 19 districts is about 35 percent of Iowa's total public school enrollment. Most of these buildings that do not have food service are elementary schools.

Many elementary schools that do not have food service are Title I ESEA target schools. Quite a number of these have or have had Head Start Programs. Some of these buildings do not have a milk program. Of the children who attend these elementary schools, many are from families who draw public assistance, are from low-income families, or needy children.

Only a few needy schools in our nation have a school breakfast program despite the program's dramatic positive results.

Most city school districts nowadays include lunch facilities when constructing new schools, but do not start lunch programs in older buildings so often located in poorer sections of their city.

Head Start Programs have been one of the best convincers for needed school lunch or breakfast programs, especially when they have been operated during the summer months in school buildings that had no food service during the regular school year. Watching a hungry child eat is far more convincing than a thousand assurances from others.

The number of needy children continues to increase despite the Pill; primarily in urban areas.

An unceasing river of needy children flows from one elementary building to another through our nation's needy schools within our cities. This movement accounts for the high pupil turnover rates in some of Iowa's elementary schools.

One city superintendent asks, "Where have we failed in education? We have families in our city who have been on relief for three generations and are still on relief, yet they attended our public schools."

A child's personality changes when he is hungry, it also changes when he is cold.

During the 1967-1968 school year, several city school districts in Iowa decided to expand their lunch program to eventually include all school buildings. Several districts in Iowa made special efforts to reach their needy pupils by serving additional free or reduced-price lunches.

The question arises as to what is needed to expand food service programs to all school buildings and to provide additional free or reduced-price lunches to our needy children. Money! Not only increased funds from the Federal Government, but also direct appropriations from state governments and increased budgeting for food service by many local school districts.

BASIC REQUIREMENTS FOR AN ADEQUATE PUPIL PERSONNEL PROGRAM

John L. Ferguson, Professor of Education
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Basic Philosophy

1. The school, its program, and its personnel must be considered as resources available to the child.
2. The specific outcome sought through these organized services is greater personal development and potential for self-realization.
3. It is the responsibility of the school to see that each child can exercise his right to receive personal guidance and educational experience of the highest quality commensurate with his needs and abilities.

Assigned Responsibility

1. The guidance of each child is the responsibility of some one person.
2. The purpose is to direct the responsibility.
3. The remaining staff and programs become resources to the child and his counselor.

Pupil Personnel Administrator

1. The administrator should be trained in the broad areas of pupil personnel work.
2. The administrator should have authority and responsibility to develop and coordinate the work of one or more pupil personnel operational units.

Operational Unit

1. The operational unit is the basic and complete unit serving one or more attendance units.
2. The responsibilities of the unit include:
    a. Assessment of unique individual characteristics.
    b. Interpretation of the needs and of programs to meet these needs.
    c. Implementation, or the placement of the student into programs of highest individual promise.
    d. Evaluation of the progress of the student.

3. The following services are essential to fulfill the above responsibilities:
   —guidance services
   —placement
   —psychological services—appraisal, treatment, consultation
   —attendance and other supporting personnel (clerical and paraprofessional)
   —learning diagnosticians
   —health services

Differential Pupil Personnel Service

1. High concentrations of special services are needed to help selected children break out of the social and economic bonds inherent in the urban ghettos and isolated rural areas.
2. Indicators for special services are: high unemployment rates, drop-outs, low family incomes, high delinquency, etc.

Staffing of Operational Units

1. Recommended staff-pupil ratios per operational unit are:

—Pupil personnel administration	1 per unit
—Elementary school counselor	1:600
—Secondary school counselor	1:300
—School psychologists	1:2000
—School social worker	1:2000
—School nurse	1:2000

2. Maximum ratios should not exceed 50 percent.
3. Valuable services can be rendered by personnel referred to as sub-professional, paraprofessional, counselor assistant, psychometrists, etc. (Equivalent to teacher-aides for the classroom teacher).

Local and Intermediate Operational Units

1. It is quite possible that to attain a sufficient pupil population base (see staff ratios above), it may be necessary for the operational unit to:
   —Serve more than one administrative unit.
   —Serve one or more counties.
2. The most effective operational units will be designed to serve 2,000 to 5,000 pupils.
3. In some pockets of extreme cultural deprivation units serving 500 pupils may be a maximum.
4. Some services and personnel will be housed in the attendance unit; some may be centrally located.

Program Evaluation

1. The program should be "action orientated" (needs, objectives, procedures, and evaluation).
2. Criteria for evaluation should include:
   —Qualifications of the personnel.
   —Pupil ratios
   —Effectiveness of the program to meet the needs of the children served.

Role of the State Department of Education

1. The organizational structure should include:
   —Associate Superintendent for Pupil Personnel Services.
   —Personnel to fulfill the state's leadership role in personnel services.
2. The State Department of Education should establish regional coordinating service centers. The need exists due to:
   —Mobility of the population.
   —Job placement of a student in an area other than that in which he completed his education.
3. Activities of the regional coordinating service centers would include:
   —Providing information concerning jobs and job training opportunities.
   —Liaison with state rehabilitation, employment services, community action, and OEO programs, etc.
   —Development of surveys of graduates and school leavers on a district basis.
   —Providing opportunities for cooperative services between local district programs.
4. Four to six regional centers would be needed in each of the Great Plains states.

Curricular Opportunities

1. Curricular and pupil personnel programs are interdependent.
2. There must be full recognition of the need for enriched educational programs providing basic, vocational, and avocational needs.

GUIDANCE AND SCHOOL DISTRICT ORGANIZATION

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Purpose of Counseling and Guidance

1. Counseling and guidance is concerned with helping the pupil:
    a. To understand himself and his environment.
    b. To become competent in making satisfactory decisions regarding his immediate and future experiences.
2. Counseling and guidance services are a means of assisting teachers and administrators in their attempts to help the elementary and secondary school students cope with the changes in the American way of life.

Changes in America Making Counseling and Guidance Essential

Recent changes in America and the world are making the above tasks increasingly complex and difficult. Among these changes are the following:

—The changing school population.
—The changing emphasis upon education.
—The changing school curricular program.
—The changing American society.
—The changing vocational world.
—The changing emphasis upon individuals.

Functions of the School Counselor

1. To plan and develop an organized program of counseling and guidance services.
2. To counsel with children and youth individually and in small groups.
3. To assume the role of leader and consultant in the school's pupil appraisal program.
4. To assist students in educational and vocational planning.
5. To refer students and parents to other specialists.
6. To provide placement information for students, teachers, administrators, and parents.
7. To help parents understand the school and their children.
8. To conduct in-service work with administrators and teachers.
9. To design and conduct local research and evaluation.
10. To assist in school public relations.

Necessary Ingredients for Counseling and Guidance

1. Administration, staff, and community support for the program and activities.
2. An adequate educational curricular program in each school.
3. Sufficient time, facilities, materials, finances, and equipment.
4. An availability of school, community, and state referral sources and agencies.
5. Supervisory and consultative assistance within and without the local district.
6. Time, support, and encouragement to become involved in professional activities.

All of the above are most possible of fulfillment if the school organizational pattern allows for units of sufficient size to provide maximum support in terms of finances and leadership. All of them require and demand top-flight administrators with vision, foresight, and professional purpose.

Recommended Organizational Pattern to provide Guidance Services

1. Local School Districts:
   - —Elementary:
     - —One full-time counselor for each elementary school.
     - —A pupil/counselor ratio of from 300-1 to 400-1.
   - —Secondary:
     - —One full time professionally prepared counselor for each school.
     - —A pupil/counselor ratio of from 250-1 to 350-1.
   - —K-12:
     - —(Districts too small due to geographic factors to meet the above recommendations). At least one full-time professionally trained counselor to work with all students, K-12.
     - —A pupil/counselor ratio of 350-1.
   - —Staff:
     - —Counselors (See above ratios).
     - —Director of Guidance; or, Director of Pupil Personnel Services.
     - —Referral sources, including speech and hearing therapists, remedial reading teachers, nurses, and social workers.
   - —Adequate facilities, including space for individual and group counseling, the working materials and library necessary for effective counseling and clerical assistance.
2. Area Educational Districts:
   - —The establishment of Area Educational Districts to ensure proper supervisory consultative and liaison functions between the State Department of Public Instruction and the local school districts.
     - —6 to 8 educational districts, each containing approximately 25,000 school age youth.

- —Personnel:
  - —Counseling and guidance consultants.
  - —Director of Pupil Personnel Services or Director of Special Services.
  - —Auxiliary personnel: school psychologists, psychiatric social workers, speech and hearing therapists, complete psychiatric and clinical services associated with mental health centers.
- —Facilities:
  - —Computer equipment and data processing facilities.
  - —Film library and video tape equipment.
  - —Educational media center.

3: State Department of Public Instruction:
- —Provide leadership for the local and area educational districts.
- —Personnel should include administrators, supervisors, and consultants.
- —An extended list of special services (See position paper).

Selected Quotes

"Counseling and guidance programs developed along the guidelines as set forth in this position paper will assure boys and girls of a better future based upon an improved quality education program." Foreword by Jerry Mayer, President South Dakota Personnel and Guidance Association.

"The ultimate hope is that each youth will learn those habits, behaviors, skills, and personal characteristics that will enable him to contribute to and profit from our democratic society. (This is a purpose of guidance.)

"Any problem or concern which effects the individual's ability to maximally profit from his educational experiences is the proper domain of the school counselor."

SCHOOL LIBRARIES IN SOUTH DAKOTA

Ardis L. Ruark
President of School Librarians, South Dakota

Need for a School Library or Instructional Resource Center

1. A good school library is essential to quality education.
2. School library services or informational services must be available to all students and teachers.
3. Students are spending more time in independent study; they need a full range of library services with the guidance of a qualified school librarian.
4. It is through the use of the materials of the library that students develop independence in judgment, acquire social attitudes, develop goals of life, and learn basic citizenship.

Functions and Responsibilities of Libraries are:

—To provide materials that will enrich and support the curriculum, taking into consideration the varied interests, abilities, and maturity levels of the pupils served.

—To provide materials that will stimulate growth in factual knowledge, literary appreciation, aesthetic values, and ethical standards.

—To provide a background of information which will enable pupils to make intelligent judgments in their daily lives.

—To provide materials on opposing sides of controversial issues so that young citizens may develop under guidance the practice of critical reading and thinking.

—To provide materials representative of the many religious, ethnic, and cultural groups and their contributions to our American heritage.

—To place principles above personal opinion and reason above prejudice in the selection of materials of the highest quality in order to assure a comprehensive collection appropriate for the users of the library.

The Media Program for Instructional Resource Centers

1. The recommended plan for the school library or instructional resource center for South Dakota proposes a three phase procedure for attaining the ALA Standards.
2. Each phase of this plan requires additional expenditures for personnel facilities, equipment, and multi-media collections.

3. Some schools that are in the beginning phases of library or instructional material center development will need to devise long term goals to reach Phase III.
4. Most schools in South Dakota are a long way from achieving these goals. ALA **Standards** are being revised to make these goals even higher.

Guidelines to Consider for Developing the Program of School Library Services

A. The physical growth and maturity of the children need to be considered in their use of the library.
   1. Some children having special problems need the benefits of special help from the library; these might be children with poor vision who need large type sight saver books or those who have low reading levels but need high interest stories.
   2. Some students will need a variety of sources to satisfy their needs—book and non-book.

B. All students need to acquire a certain proficiency in basic skills for various ages or grade levels.
   1. A curriculum or course of study for library skills needs to be established to maintain a high level program.
   2. Opportunity must be given to practice the skills taught.

C. The needs of the pupils must be considered and provisions must be made for media suited to maturity and development of the students.

D. As curriculum changes, so must the school library; weeding and re-evaluating must take place constantly.

Listed below are some, but not all, of the necessary items for a successful library.

Hardware:
1. 18mm projector
2. 16mm projector
3. Filmstrip projector
4. Record player
5. Tape recorder
6. Overhead projector
7. Opaque projector
8. Radio
9. Television
10. Projection screens
11. Proper shelving, etc.

Software:
1. Books
2. Magazines
3. Pamphlets
4. Newspapers
5. Slides
6. Tapes & records
7. Films & film strips
8. Charts & maps
9. Globes, etc.
10. Pictures

In addition it is obvious that sound equipment and material budgets be established and supported. A key to the successful operation center is a competent librarian assisted by adequate staff.

Summary

Basically most of the educational goals remain the same, but the newer methods for achieving these goals place more emphasis on independent study. It is for this reason that libraries are becoming instructional materials centers. Schools are beginning to allow unscheduled time blocks for elementary as well as secondary students for personal exploration.

By beginning with Phase I even the smallest school library or county library can establish a workable plan and an educational unit which will complement the school curriculum.

The library quarters shall be attractive, centrally located, and appropriately equipped.

The ideal time to institute large scale library expansion is at the time of school district reorganization. Regional or multi-districts can be established to perform increased services in an efficient and economical manner. Some of the services that a newly formed centralized library might provide are technical processing of materials, purchases and circulation of specialized materials, mobile services, consultants, model collections for examination purposes, data processing services, and research assistance.

SCHOOL PLANTS AND DISTRICT ORGANIZATION

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Some Guiding Concepts

1. Public education from the kindergarten through the university is undergoing rapid changes, and these changes will accelerate in the years ahead.
2. School plants in the future must be readily and economically adjusted to accommodate the changing educational programs and the manner in which they may be operated.
3. The complexities of these changes challenges the ingenuity, imagination, and creativeness of both the educational and the architectural planners.
4. The multiplicity of activities connected with the care and operation of these plants can only be adequately performed by a team of trained, skilled and semi-skilled workers.
5. The kind and quality of educational plants are directly influenced by: the demands made upon them for education; available financial and human resources; public school population; and geographical area.
6. The school district structure contributes to the kind and quality of education, and influences the scope and quality of education which the public schools provide.

The Satisfactory School District

1. In terms of plant facilities, the satisfactory school district is one that can perform its several functions in acquiring, operating, and maintaining plant facilities that provide the physical environment in which all pupils from kindergarten, or pre-kindergarten, through the secondary school can experience the learning activities which meet their individual needs and those of their society.

Objectives of the School Plant

1. Spatial adequacy and desirability.
2. Quality of plant.
3. Health and safety.
4. Aesthetics.
5. Adaptability.
6. Efficiency and economy.

Measures to be Utilized in Obtaining Plant Facilities Efficiently and Economically

1. Development of a long-range plant program (enrollments; educational program; relationships of one attendance center to another).

2. Determination of overall educational program and services.
3. Design and construction of the building.
4. Size of school plants.
   - Initial costs.
   - Maintenance and operation savings in larger units.
5. Development and implementation of a financing plan to provide necessary funds at minimum cost.

Size in Relation to Efficiency and Economy

Costs involved in planning, constructing, and operating a single plant for housing a high school of 500 or more pupils will be considerably less than for two separate plants each accommodating half that number.

1. Initial costs:
   - Site costs for 40 acres.
   - Reduction in costs of architectural services, contractor's overhead, managing and directing construction, quality of materials used, and supervision.
   - Purchase and installation of building service equipment: heating, cooling, ventilating, plumbing, sanitation, cafeteria, and other building equipment.
   - Elimination of duplication of large building areas: gymnasiums, auditoriums, cafeterias, shops, and administrative offices.
2. Maintenance and operation savings:
   - Reductions in fuel and energy by operating one building rather than two.
   - Some reduction in custodial work.
   - Reduction of maintenance.
3. Illustration of savings (21 Missouri projects in recent years):

Legend	Group I	Group II	Group III
Number of schools	5	9	7
Average enrollment	159	365	609
Square feet of floor area per pupil	200	165	110
Range in enrollment	99–228	285–441	590–771
Sq. ft. per pupil for: lowest enrollment	287	195	122
highest enrollment	228	124	110
Per pupil cost, based on $14 per sq. ft.	$2,800	$2,310	$1,540
Total dollar savings had it been possible (time / distance / geography) to have joined with one area to build a high school comparable to Group III: (each school)	$200,340	$281,050	–
–All schools in the group	$1,001,700	$2,529,450	–
–Grand total savings for 14 schools	$3,531,150		

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* Note: Additional savings would have been made on plant planning, site acquisition and development, building and instructional equipment, and maintaining and operating the plant facilities.

Maintenance and Operation of School Plants

1. Maintenance and operation is big business. For example, adequate provision must be made for maintenance and operation of new plants and facilities. In 1964, the expenditures in the United States amounted to $3,116,000,000. Such an investment must be protected, maintained, preserved, and operated in the interests of the total educational program.
2. Maintenance programs must include:
   —Selection of most effective and economical type.
   —Establishment of responsibility.
   —Locate maintenance work.
   —Establishment of priorities and scheduling of work.
   —Records and reporting.
   —A maintenance budget.
3. Operating programs must include:
   —Assignment of an individual with overall operation responsibility.
   —Selecting, assigning, and training custodial staff.
   —Keeping of records and reports.
   —Maintaining operating budget.
4. The effect of size of school district, measured in terms of number of pupils enrolled, on plant maintenance and operation costs is illustrated by the results obtained from an investigation of expenditures which 24 school systems in Missouri made during the fiscal year 1966–67:

Enrollment range	Average enrollment	Total enrollment	Total expenditure	Expenditure per pupil
Less than 500	341	1,363	$ 76,977	$56
500 – 1,000	684	2,734	157,989	52
1,000 – 2,000	1,314	5,256	229,855	44
2,000 – 3,000	2,686	10,740	423,219	40
5,000 – 10,000	5,838	23,352	939,115	40
10,000 – 20,000	14,939	59,758	2,442,343	41

Small school districts are paying as much as 40 percent more, on a per pupil basis, for the operation and upkeep of their plant facilities than those with enrollments of 2,500 or more.

"In the 24 districts involved in this study it is clearly evident that those with 2,500 and more pupils are operating and maintaining their school plants more effectively and at less cost per pupil than the districts with enrollments below this number."

Responsibility

1. Local:
   —Responsibility for the planning, construction, maintenance, and operation of the school plant rests primarily with the local school district.
2. State:
   —Providing assistance in the development and implementation of immediate and long range plant programs.

–Providing assistance in school plant maintenance and operation programs, including:
  - **–Surveys for maintenance and operation programs.**
  - **–Organizing and operating schools of instruction.**
  - **–Consulting with and advising local maintenance and operational personnel.**
  - **–Providing information to all local districts concerning new materials and equipment and new innovations in the care and operation of plant facilities.**

–Assisting the local district in financing the planning and construction of new plants, rehabilitating and modernizing existing ones, and maintaining and operating all the school's plant facilities.

3. **Federal:**
   - **–Federal funds for plant purposes should be extended to include all areas of the state's master plan of education.**
   - **–Federal funds should be distributed to the local districts in conformity with the plan used by the state in distributing its funds.**

SPECIAL EDUCATION

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The Goals of the Special Education Program

1. **To provide a modification of the regular school program to meet the needs of exceptional children. The exceptional child is defined as "that child who deviates from the average or normal child in mental, physical, or social characteristics to such an extent that he requires a modification of school practices, or special educational services, in order to develop his maximum capacity." (National studies indicate that about 12 percent of the school age children are exceptional children in need of special programs.)**
2. **To provide a special education program geared to the abilities of exceptional children which will increase the likelihood that these children will become successful, contributing, independent adult members of our society.**

The Content of the Special Education Program

Special education is generally expected to provide programs for at least the following areas: (1) the gifted; (2) the educable mentally retarded; (3) the trainable mentally retarded; (4) the visually impaired; (5) the acoustically handicapped; (6) children with cerebral dysfunctions; (7) children with orthopedic handicaps and special health problems; (8) children with speech and language impairment; (9) the emotionally disturbed; and (10) the delinquent.

Each program within special education must reflect the needs of the children it serves; to do this there must be cooperative efforts of all members of the special education program, and ancillary services as well.

Staffing

1. **Identification: There should be yearly screening programs in each of the handicap areas to determine the program needs of the district. All professional personnel of the school should have adequate training to make initial referrals for diagnosis.**
2. **Diagnosis: Each school should have the services of a specialist in at least each of the following special education areas to render a comprehensive diagnosis: health, vision, hearing, speech, language, intellectual achievement, and social and/or emotional adjustment**

3. Services: Each school district should have competently trained personnel to provide the needed programs of special education.
4. Evaluation and Research: Well-trained personnel should be provided for constant evaluation and research.

As many of the special education programs and services as possible should be provided at the attendance center and from the administrative district. Population density may make it necessary to look to the intermediate unit for some ancillary services.

Local school districts should strive to bring the special education services to their children rather than to send their children away from the home and school.

Facilities

Facilities and equipment must be provided in adequate architectural specifications and numbers to facilitate each program need. Modern educational materials are a necessity.

PART V

ORGANIZATION AND FINANCE

ADMINISTRATIVE STAFF FOR COMPREHENSIVE EDUCATIONAL SERVICES

Dr. H. Vaughn Phelps
Superintendent of Westside Public Schools
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The Goals of the Administrative Structure

The administrative structure of the school system is the organization established to accomplish the goals of the system. It is composed of (1) an elected, representative body, commonly known as the board of education, which is the policy making body of the system; (2) the chief school administrator, commonly called the superintendent; and (3) sufficient administrative personnel to perform the duties involved in accomplishing desired goals.

The chief school administrator and his staff are responsible to the elected board of education for duties which include the following: (1) executing the policy of the board; (2) decision-making on all matters relating to school operation; (3) business and financial operations of the system; (4) personnel administration; (5) curriculum development; (6) in-service training; (7) professional growth; (8) articulation; (9) administration of special programs; and (10) public relations.

To perform the above functions, the superintendent must accept responsibility for organizing the available human and material resources from within the organization and make use of selected consultant resources from outside the organization. To be effective in the coordination of these resources, it is essential that the system be integrated, providing for education of children from before age five to beyond age seventeen, under the leadership of a single chief school administrator working with the board of education.

Staffing for Administration

Adequacy of staff is necessary to accomplish the goals of the school system. The administrative staff must be sufficient in number to provide the structure for employing and deploying the resources to accomplish the desired goals of the organization.

A minimum administrative staffing for any educational enterprise attempting to provide the basic education for children from before age five to beyond age seventeen includes a chief administrator, an elementary specialist, and a secondary specialist. Beyond this minimum, each division, area of responsibility, or unit of operation involving two hundred fifty (250) students or ten (10) professional staff members (with supporting personnel) should have a minimum of one administrator. The "administrator" may be called an assistant superintendent, principal, assistant principal, director, coordinator, supervisor, or may be given other titles. The duties and responsibilities for each administrative position should be established through a job analysis and description of the tasks to be performed.

As an example, for a school system providing a basic education program for 3,000 students, it would be recommended that there be an administrative staff of 12 which might include: (1) a superintendent; (2) an assistant superintendent for business affairs; (3) an assistant superintendent for curriculum and research; (4) a director of special services; (5) a director of adult education and special services; (6) a senior high school principal; (7) an assistant senior high school principal; (8) a junior high school principal; (9) an elementary coordinator or supervisor; and (10) three elementary principals.

THE AREA EDUCATIONAL SERVICE AGENCY

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The Need for An Educational Service Agency

The major unmet needs of elementary and secondary education relate to the inadequacies of local school districts. Major contributing causes for these inadequacies are:

- —Inadequate enrollment size.
- —Deficiencies in educational programs.
- —Failure to provide professional personnel.
- —Inadequate financial resources.

The larger districts also have service needs, although such needs are somewhat different from those of small school districts.

Characteristics of Strong Area Education Service Agencies

1. Area or Service Base:
    - —An area or territory that will make possible:
        - —A maximum offering of programs and services so that present and future needs can be met.
        - —Well prepared professional personnel to carry out a variety of needed special service programs.
        - —Challenging opportunities for educational leadership.
    - —A pupil population base of 30,000–50,000.
        - —The range is from 5,000 in Michigan to 125,000 in New York.
    - —Special qualifications limiting the area base include:
        - —Maximum driving time of one hour from the intermediate office to any local district attendance center.
        - —A maximum radius of 50 to 60 miles.
        - —An optimum area based on a natural socioeconomic community.
2. Programs and Services
    - —The providing of programs and services that cannot be supported at the local level with the desired quality, breadth, efficiency, and economy.
3. Financial Base
    - —Recommended characteristics of Area Service Agencies include:
        - —Fiscal integrity
        - —Fiscal independence
        - —Independent tax levying powers
        - —Right to enter into contracts
        - —Authority to incur bonded indebtedness
        - —Eligibility to receive state financial assistance based upon a state-aid-to-education formula.

4. Staffing Patterns
   - —Services of a highly specialized nature.
   - —Highly trained, specialized personnel.
   - —Capability of providing the very best in the way of sophisticated practice that technology and educational and para-educational disciplines have to offer.
5. Legislative Structure
   - —Legal provisions for regional area (county/multi-county).
   - —Flexibility for functional and organizational changes.
   - —Legally established with well defined functions, and authority to implement delegated responsibilities.
   - —Delegated fiscal integrity and independence, including taxing powers.
   - —Delegated responsibility for systematic reorganization of all educational echelons.
   - —Delegated responsibility for administrative, program, and service responsibilities.
   - —Authority to incur bonded indebtedness and to hold title to real property.

Role and Function of Area Educational Service Agencies

1. Articulative functions: local-area-state levels; vertical and horizontal development and implementation of statewide educational planning.
2. Coordinative functions: Assists local school districts in working together to solve their common problems and needs. This function helps to protect and to enhance local control and independence of local districts.
3. Supplementary service functions: Complements the role of local districts by providing direct educational services (including programs) which they are unable to provide efficiently, effectively and/or economically.
4. Illustrative examples:
   - —Administrative and staff personnel programs and services.
   - —Instructional programs and services.
   - —Student personnel programs and services.
   - —Special education programs and services.
   - —Research and development programs and services.

Major Benefits Resulting From a Statewide Network of Area Educational Agencies

1. Protect and promote local control and local determination.
2. Equalize and extend educational opportunities.
3. Assure economical and efficient operation of many educational programs.
4. Improve the quality of many educational programs.
5. Provide a needed change agent in education.
6. Promote the restructuring of school government consistent with developments in the public and private sectors.
7. Improve the coordination of local, regional, and statewide educational planning.

Alternative Approaches

1. Encourage the development of larger local school districts.
2. Encourage cooperation between local units.
3. Decentralize the state education agency.
4. Provide services through post high school institutions.

Summary—Area Educational Service Agencies

1. It is the most feasible approach, at this point in history and in the foreseeable future, of overcoming inadequacies and of providing equal educational opportunities for all, regardless of birthright, and of protecting local control and local determination, important features of the American public school system.
2. It is an improvement in the structure of a state system of education, a necessary prerequisite to the implementation of many needed innovations in public elementary and secondary education.
3. It permits greater efficiency and economy in the provision of many educational programs and services.
4. It is consistent and compatible with a number of major discernible trends in both the public and private sectors toward the area approach, and developments in inter-governmental relations.
5. It is supported by recent legislation or interest in many states in all parts of the country.
6. It has the support of a number of professional organizations and agencies. Among these is the American Association of School Administrators which in 1967 adopted a resolution supporting the Intermediate Unit—the strongest position which this organization has ever taken in its support.

A Final Word

The regional service agency in its newly emerging form is a product of efforts to meet new needs in education. Its benefits have been demonstrated in many parts of the United States.

If the RESA Unit is to meet its potential it must be developed, or restructured where it now exists, around educational purposes rather than around political logic and/or expediency. As indicated previously, the RESA concept, although not universally recognized, is one of the biggest movements in education in this country today. Its stay in court has ended. All that remains now is for the profession, the public, and state legislatures to recognize its potential and support its development.

THE EFFECTS OF GOVERNMENTAL STRUCTURE AND ADMINISTRATION UPON PUBLIC EDUCATION SYSTEMS

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Purpose

1. To suggest the merits of an interdisciplinary approach to an analysis of public education.
2. To suggest how such an approach would affect and be affected by the political, economic, and social inputs and outputs of our society.
3. To apply recent research findings in political science to an analysis of the role of school administrators and policy makers and of their attitudes concerning the units they are responsible for operating.
4. To open the door to further investigation.

Need for Interdisciplinary Approach

1. Few areas cry out more for an interdisciplinary approach to the multitude of problems confronting them than does the field of education.
2. The structuring of public school systems calls for solution to the urgent problems and developments of a political, economic, and social nature present in the waning decades of the 20th century.

Role Perception

1. Public school administrators are governmental officials who work within the regular processes of government and politics, which is the lubricant that keeps government operative.
   —Failure to accept this reality results in a false sense of role ambivalence on the part of school administrators, since they cannot under old dogmas perceive how they can be professionals and yet operate in the general political arena to acquire the necessary buildings, salaries, teaching tools, and favorable overall policy.
   —Public schoolmen are in error when they equate their brand of professionalism with that of the lawyer or medical doctor. The first operates within the public sector, the second within the private sector.
   —The difference is in the type of professionalism, not that either one or the other is any less professional.
2. It is imperative that public school administrators familiarize themselves with the tools and techniques of research as well as with the results of social scientists who are constantly engaged in seeking to understand the processes and realities of the public sector.

—This alludes to the findings and methods of disciplines such as economics, political science, and sociology.

3. The word "system" in the term "educational system" implies comprehensive interrelationship between its parts and its inherent oneness with the governmental system.

Administrative Analysis in the Structure of Scientific Revolutions

1. The administrator in almost all organizations has a responsibility to:
   - —Establish and maintain the organizational structure.
   - —Make some of the broader and more important decisions regarding the content of the organization's work.
2. The broader purposes of governmental organization are predominantly social and educational, and the larger problems of means are principally economic and fiscal, achieved through the political process.
3. The work of the administrator involves:
   - —Decisions about organizational structure.
   - —The broader decisions as to the content of the organization's work.
4. The proper training for "administrators" lies not in the narrow field of administrative theory, but generally in the broader field of the social sciences.

The Concept of Community

1. Community characteristics—Pre-1900:
   - —The process of agricultural settlement and the emergence of villages established an intimate pattern of political, social, and economic interdependence with the farm people.
2. Community characteristics—1915:
   - —Establishment of actual communities rather than purely legal communities.
   - —Transportation facilities contributed to establishment of actual communities.

     In one county studied:
     - ·12 trade areas, each serving about 50 square miles.
     - ·11 banking zones.
     - ·7 local newspaper zones.
     - ·12 village milk zones.
     - ·12 village church zones.
     - ·9 high school zones.
     - ·4 village library zones.
     - ·100 school districts, each covering an area of about six miles.
   - —The 9 high school communities were very similar to the trade communities.
   - —Re: values of education:
     - ·Conceived by parents whose outlook was largely formed in the 1870's and 1880's.
     - ·The advantage of a high school education did not justify more than a two-mile walk.
     - ·An eighth-grade education was still the norm.

3. Community characteristics—1968:
   - —Development of the functional economic area.
     - ·A product of the automobile, good roads, and advances in technology.
   - —One hour's travel distance—50 miles.
   - —One state, Iowa: 12 functional economic units, with some areas being inter-state.
   - —Accessibility and convenience basic criteria. (It is easier for modern consumers and workers to get around in one of the functional economic areas than it was for one of the residents in the "urban communities" in 1915.)
   - —The potential for large-scale service centers came with the wide-scale use of the automobile.
   - —Re: values of education:
     - ·the high school is for all.
     - ·Many regard a two-year post-high-school training program as a necessity.
     - ·A four-year college education is a norm.

Implications for Educational Structure

1. It demands a new and critical look at existing predilections concerning school district size and the criteria that are in fact meaningful not only in political terms but also on the basis of economic and social factors which create the actual community.
2. The Committee on Economic Development has recommended (1966):
   - —That the 2,700 non-metropolitan counties in the United States be consolidated into not more than 500 governmental units.
   - —That in metropolitan areas covering a single county, a city and county government should be fused.
3. The functional economic area is a device for governmental reorganization providing for:
   - —School districts.
   - —Junior and four-year colleges.
   - —Vocational and technical centers for training and retraining.
   - —University-wide extension programs.
   - —Public health services.
   - —Social welfare services.
   - —Police and fire protection.
   - —Maintenance and construction of local streets and highways.
   - —Urban and rural regional zoning.
   - —Public library services.

Desire for Post-High-School Education

A study in southwest Iowa just completed indicates that there is a desire for post-high-school educational opportunities:

—9 percent of 2,340 interviewed wanted some type of formal education beyond the high school.

—40 percent desired college level work.
—Interest varied by types of communities:
  ·Urban—more interest in academic and technical training.
  ·Rural—more interest in short-term vocational training.
—Residents of rural areas were willing to travel farther than residents of urban areas for educational purposes.
—Fewer than 20 percent indicated they were unwilling to travel more than 10 miles.

Systems Analysis

1. Policy outcomes in education express significant value commitments of the community.
2. Educational outcomes may be conceived of as the products of "inputs" brought to bear upon a "system which causes it to produce specific 'outputs'."
3. Neither environmental nor structural variables are able to explain all of the policy differences among cities.
4. There is not much evidence of a strong explanatory linkage between political system characteristics and educational outcomes.
5. Urban environmental forces (size, wealth, and socioeconomic attributes of the populations) appear to directly influence educational outcomes without being mediated by structural variables.
   ·The size of the city is a crucial variable in urban affairs.
6. In only two policy outcomes (teacher-pupil ratios and teachers without degrees) were structural characteristics of the political system more influential than the environmental variables.
7. Research should serve as a warning to education and political scientists against making simple assumptions about the policy consequences of political system characteristics to the point that structural considerations affecting school policy making are ignored.
8. Government at all levels operates within the constraints set by the total social milieu. Education is no exception.

SIZE AND STATE SCHOOL SYSTEM ORGANIZATION

William E. Inman, Director
Title III Project, Athens, Ohio
Former Specialist in School District Organization
United States Office of Education

OBJECTIVES AND SIZE

- Each student should have the opportunity to participate in an educational program which will fully meet his individual educational needs.

—Individuals have many different educational needs. To have a single program which forces all students through an identical educational mold hardly meets this objective.

—Larger schools, with greater pupil numbers, can and do offer greater program breadth than their smaller counterparts.

—Local, state, and national studies substantiate the relationship between program offerings and the size of the attendance center.

—One study revealed 3 to 5 course offerings in English in schools, grades 10–12, of less than 100 to 5 to 16 or more offerings in a school enrolling 2,000 or more pupils.

—One state study (Illinois) revealed no offerings in vocational T & I in high schools under 200, 0.3 units in schools of 400–700 pupils, and 8.8 course credits in schools of over 1,250.

- The educational structure shall be organized to provide an equalization of the costs of education throughout the state.

—One midwestern state reported extremes of $2,992 and $166,500 (1967) in assessed valuations per pupil.

—The fiscal resources of a state should become available to more students in order to reduce the inequities in educational programs resulting from the fiscal inequities.

—A school district should be large enough to have a tax capable of supporting an educational program which meets the needs of youth residing in the district.

—It should be remembered that state equalization programs equalize only to a minimum level, not to an optimum or maximum level.

- The educational structure of the state shall be so organized to provide students with well-trained classroom teachers.

—The literature supports the generalization that good sized schools and school districts generally have staff members with higher levels of professional preparation than do smaller schools and school districts.

—Larger school districts with broader programs, greater local wealth and school system personnel policies attract better-trained teachers.

- The educational structure shall be organized to efficiently utilize the specialized and technical school personnel in the state.

  —Two aspects of staff utilization emerge from the literature:

  1. The pupil-teacher ratio factor often reveals excessively low numbers of pupils per teacher in small districts.
  2. The specialization training of teachers is often wasted, or poorly used, in small school districts.

- The educational structure of the state shall be organized in such a way that the best use of moneys expended for education may be realized.

  —The literature consensus is that small school districts and small schools are, when compared to their larger counterparts, more costly to operate when cost per pupil is used as a criterion.

  —Statewide analysis of costs per pupil in various sizes of school districts often point out the comparatively costly programs of small school districts.

Summary: Size suggestions are related to objectives. Unless certain sizes can be reached, program objectives may not be met. The importance of the size factor is not in numbers themselves, but what the greater numbers can produce.

SIZE AND PARTS OF THE STRUCTURE

- Structure, like size, is not important in and of itself. It is important when related to the tasks that structure can accomplish to meet educational objectives in a state.

- Size and the elementary school:

  —The consensus of the literature suggests a minimum of one teacher per grade level.

  —Two or three classrooms for each grade level are recommended.

  —A maximum seems to be four classrooms per grade level.

- Size and the secondary school:

  —Of all recent high school size recommendations, the minimum figure of 500 appears most often.

    —The literature indicates that not all educational objectives can be met with an enrollment of 500 students.

    —If a vocational high school program is available nearby, operated under the same or a different administrative structure, then the 500 pupil high school might be satisfactory.

- —A figure of 500 students might be satisfactory under some structural arrangements and inadequate in other cases.

- Size and the administrative unit (Basic School District).
  - —The individual parts of a state school system structure are inextricably related. A balance exists based upon programs offered at each level and the statutory responsibilities which each part must assume. To change any part without giving careful consideration to the others may cause serious problems throughout an entire state.
  - —Contemporary literature on school district size ranges from 2,000 to 50,000 students.
  - —If program includes primarily what goes on in the classroom plus the general administration, the lower level of pupil enrollments prevails.
  - —If program includes all the ancillary services to support the classroom and its administration then the upper level of pupil enrollments prevails.

- Size and intermediate agencies.
  - —In seven states revising the intermediate level of school government since 1962, the minimum size ranged from 5,000 to 50,000 students.
  - —One state has tentatively adopted 100,000 pupil size base.
  - —A study in one state has suggested a 125,000 pupil size base.
  - —The factor of size is objective oriented. The objective to be met is the provision of program-supporting and supplemental services to all children.

- Size and vocational education.
  - —Small high school enrollments can not sustain a vocational education program or satisfactory breadth of offerings.
  - —Two states have indicated a large pupil base (K–12) to provide satisfactory programs in vocational education:
    - —Division of Vocational Education in Ohio—42,000.
    - —Rockland County, New York, BOCES Unit—75,000.
  - —A state should not fall into the trap of having to decide on a single type of district for vocational education programs. Multiple approaches, dependent upon such factors as population and fiscal resources, appear to present a more realistic answer to the problem.

- Size and specialized services.
  - —Clear-cut answers on size for specialized services are not available.
  - —Guidelines include the following:
    - —Density/sparsity factors influence the number of children to be serviced by personnel in various specialized services.
    - —The ratio of number of pupils per staff member varies from 3–8 pupils for the neurological and/or emotionally disturbed to 12,000 pupils for a language arts consultant. (See Table X, Position Paper).

- Size and extra-class activities.
  - The literature is not in any general agreement about whether students participate in extra-class activities to any greater or lesser extent in large or small high schools.
  - There is an agreement that larger high schools do have a larger number of extra-class activities from which students may choose.
- Size and pupil achievement.
  - The literature strongly suggests that pupil academic achievement, as measured by scores on standardized achievement tests, is higher in larger schools, both elementary and high school.

Summary:

1. There is a paucity of pure research on many aspects of the size question.
2. The literature does present some research and the soundest professional opinion and counsel that many individuals can express on the basis of their analysis of one or more aspects of size.
3. Two questions must be answered before size is considered:
   a. What do we want the state school system to accomplish?
   b. What are the structural alternatives that will be best for our state?

   After these two questions have been answered size becomes a factor in determining the success of programs within the structure.

THE SIZE FACTOR AS RECOMMENDED BY STATE ASSOCIATIONS FOR SCHOOL ADMINISTRATORS IN OHIO

Ralph D. Purdy, Director
Great Plains School District
Organization Project

Legend	Elementary Principals	Secondary Principals	Superintendents	OASCD
The Elementary School				
Grades	N–8			
Pupil enrollments: minimum	300			
optimum	500			
maximum	750			
The Secondary School				
Grades		7–14		
Pupil enrollment, grade 12		300		300
Administrative District, K–12				
Pupil enrollment: minimum		5,000	3,500	2,500
optimum				20,000
maximum				50,000
Area Service District				
Pupil enrollment: minimum	20,000	20,000		20,000
optimum	35,000		50,000	
maximum	50,000			50,000

Key: Elem. Prin.—Ohio Department of Elementary School Principals.
Second. Prin.—Ohio Association Secondary School Principals.
Superintendents—Ohio Association of School Administrators.
OASCD—Ohio Association for Supervision and Supervision Development.

Selected Services (Pupil-worker ratio)

Librarian	1 bldg.	1–1,000
Psychologist	1–2,500	
Speech & Hearing	1–3,000	
Guidance counselor	1–500	1–250
Neurological/emotionally disturbed	1–3 to 8	
Music, vocal	1–500	
Music, instrumental	1–1,000	
Art	1–500	
Physical education	1–500	
School Nurse	1–2,500	
Assistant principal		1–1,000
Reading specialists		1–1,000
Teacher pupil ratio	1– less than 25	1– 20

Source: Position papers prepared by committees of each organization during 1966, and approved by the Executive Committee of each association.

SCHOOL DISTRICT ORGANIZATION MODEL PROPOSED BY OHIO ASSOCIATION FOR SUPERVISION AND CURRICULUM DEVELOPMENT

Audrey Norris*
University of Cincinnati

The Need

1. The explosion of knowledge, technological advances, and social reform make it necessary to maintain certain aspects of the school program and to change others.
2. School District organization must provide realistically for curriculum needs.
3. Curriculum change must be by design, not by draft.

The Model Curriculum

1. Cooperative development of a flexible plan for evaluation for the Unit.
2. Cooperative development of a statement of policy on evaluation for the Unit.
3. Purchase and distribution of material to principals needed for basic plans.
4. Promote the development of self-evaluation plans on the local level.
5. Provide general and technical assistance for clarifying goals, identifying and/or developing instruments needed to accumulate pertinent data.
6. Work with the data processing service and aid in interpretating data.
7. Cooperate with the State Department in maintaining minimum Standards and evaluation.
8. Secure cooperation of local district.

The State Department of Education

1. Purpose:
   - —To stimulate curriculum research and curriculum design and implementation in the schools of the state.
   - —To provide periodic assessment of the status of the schools in the utilization of basic knowledge relative to learning theory, new knowledge in content areas, and data pertaining to needs of society.

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* *OASCD Newsletter*, Vol. 13, No. 2 (December, 1966).

2. Personnel:

   - Small professional staff made up primarily of persons who are curriculum specialists in levels of education, e.g., (1) Kindergarten–Primary, (2) Upper Elementary, (3) High School, (4) Technical Education, or (5) Continuing Education, or (6) Junior College.
   - Supervisors for special subjects, e.g., foreign language, physical education, special education, and remedial reading will be located in Regional and Intermediate Offices.

Regional Research and Development Centers

1. Purpose:

   - To create new curriculum designs that will contribute to the improved learning opportunities of children in the district and the entire state.
   - To make accessible to members of the region information, research, and evaluation data pertaining to innovations in method, content, and materials and facilities from throughout the nation and world.
   - To assist intermediate units and local districts in research design.

2. Personnel:

   - Regional Centers should maintain a small professional staff of highly skilled Curriculum, Television, Research, and Evaluation Specialists. However, the supporting staff of paraprofessionals would be quite large to provide for the workload created by short term professionals employed by the Centers. Short-term professional staff members will be employed to work on various curricular problems and designs and television programs that have been determined by the Lay-Professional Advisory Board of the Centers. When a specified project is finished, the professional staff returns to the colleges or public school classrooms from whence they came.
   - Each Center should have an administrator, a curriculum specialist, television specialist, a curriculum research specialist, a statistical research specialist, an evaluation expert, a human development specialist, a research and development diffusion specialist, and a data processing specialist.

3. Number of regional centers for Ohio—8.

Intermediate District

1. Purpose:

   - To assume major responsibility for disseminating knowledge about new curricular development and provide leadership in curriculum development and research.
   - To provide consultant service in specialized areas of instruction.
   - To provide educational facilities and programs for exceptional groups of pupils who can not feasibly be cared for in their local administrative districts.

—To provide leadership to local districts in regard to identifying objectives, the curriculum, and areas needing research and development.
—To be an instructional personnel, materials, and services resource center.

2. Organization:
—Intermediate Units should serve a minimum of 800 teachers, or a school district of 20,000 pupils to a maximum of 50,000.

3. Personnel:
—A large technical and supporting staff should be provided, including one secretary for every three professional people.
—A technical staff for curriculum materials center.

Local Administrative District

1. Purpose:
—To provide the best available curricular experience for children. Such experiences are determined by a thorough knowledge of curricular plans and materials that are available and continuous and adequate assessment of local need.
—To maintain quality control over instruction.

2. Organization:
—The district should serve a minimum of 2,500 pupils and a maximum of 35,000.

3. Personnel:
—The nucleus of the curriculum staffs should be generalists, who have the responsibility for maintaining a comprehensive, balanced program of instruction. The smaller districts would have only two such people, one of which would serve as the K–12 coordinator and supervisor for one level of education, e.g., elementary and/or junior high. Special teachers in reading, speech and hearing, slow learning would be provided next.
—Additional curriculum specialists in the subject-matter fields, audio-visual, or evaluation would be added depending upon the size of the district. However, each Administrative Unit should have one curriculum specialist for every 75 teachers. These people should be assigned to work with specified buildings on problems identified by principals and teachers in those buildings.
—Local district consultants (coordinators is a better term) would utilize services of the Intermediate and Regional Offices in advancing local programs.

Summary of OASCD Model

This proposal relative to curricular organization and change shows an interrelationship and unique functions of state, regional, intermediate, and local educational units.

State:	Responsibility for continuous state-wide assessment, goal-setting, coordination, and planning.
Regions:	Research and development and providing educational media (e.g., television or special programmed materials) that are too costly for smaller units. Curriculum people are specialists in research, design, evaluation, development, and television programming.
Intermediate:	Provides special services and materials needed, but cannot be provided, by local units. Emphasis in curriculum staff is on specialists of various kinds that work K–6; K–8; or 7–12; 9–12.
Local Units:	Utilize materials and services of Intermediate and Regional Units to provide planned program suitable to districts. Curriculum people have overall responsibility and are, therefore, generalists.

A METRO APPROACH TO COOPERATIVE PLANNING— THE DENVER AREA

Chet Riley*
Director of Urban Education
Colorado State Department of Education
Executive Secretary, Denver Area School Superintendents' Council

Process of Urbanization

Physical—Tribes characterized the earlier efforts of man. As the process continued, towns, then cities, and now "technopolis" merging into megalopolis best describes man's physical environment.

Social —Becoming urbanized means accepting a new life style which is governed by old and new values, a new point of view, and a new perspective on reality. Values become relative.

Inherent in the process is the disintegration of old traditions and a change in the relationships that exist between individuals.

Implications for Education

The educational system is lagging behind in the task of preparing man to live in his environment. It has assumed the role of a catalyst rather than being one of the fundamental ingredients in the process of urbanization.

State Departments of Education have provided little leadership for emerging education problems. Their role has been predominantly confined to the instructional problems of rural school districts even though nearly two-thirds of any state's population is confronted with solving educational problems found in the urban areas. Examples of these problems are:

- Teacher-Superintendent-Board Relationships
- Racial Issues
- Community Relations
- High density of disadvantaged children in core cities
- Financing of programs to prevent dropouts
- Inservice programs designed to re-sensitize the teacher corps to meet new kinds of problems

An Effort by the Colorado Department of Education

- A Division of Urban Education was created to focus greater attention on urban education problems.
  - This increases knowledge of problems.
  - This division provides a vehicle for encouraging the department to give its attention to identified problems.

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* Excerpts from an address presented at the four-state conference on "Meeting the Needs of Youth", November 29, 1967, Lincoln, Nebraska.

  - This provides better communications with other agencies, local or national, that are concerned with urban problems.
- The Denver Area School Superintendents' Council was formed. This is a nonprofit organization including the superintendents of schools of the 14 districts in the metropolitan area of Denver plus the Commissioner of Education for the State of Colorado. The Director of the Division of Urban Education serves as the executive secretary for this organization. The purposes of this organization are:
  - To provide a forum for discussion of mutual metropolitan educational problems that can and should be approached on a cooperative basis.
  - To provide cooperative planning, research and action.
  - To provide direction of this action through the administrative leaders in the area.
  - To provide educational leadership in seeking the assistance and in working with the leadership in other community agencies.
- The Colorado Department of Education was instrumental in securing a grant for the Denver Area School Superintendents' Council from the Kettering Foundation.
  - A cooperative effort to solve metropolitan educational-social problems was built on the following rationale:
    - One of the greatest problems in America today is the crisis within its cities.
    - A crisis of this magnitude should not be left to the central cities for solution.
    - Education is the only apparent solution. Although many agencies contribute to the education of our society, the public school is probably the largest and should assume greater leadership in determining appropriate solutions. This metropolitan area at this time is still in the position of preventing major disorganization.
  - The study plan calls for the identification of significant social problems, design of short and long range solutions to cooperative implementation of programs for solution.
  - To carry out this plan
    - a committee composed of the directors of agencies or organizations which contribute significantly to the "education" of our society was formed.
    - a committee composed of people who have expert knowledge in specific disciplines relative to this plan was appointed.
    - a series of symposia entitled "Metropolis—Muddle or Model" involved the image makers of this metropolitan area in seminars designed to obtain their views.
    - a data bank was developed to be used with a computerized simulation model so that the restraints of real time might be shed in the interest of testing the effects of planned social changes and their impact on the future.

STANDARDS FOR SCHOOL DISTRICTS IN SOUTH DAKOTA

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Definition of a Good School District

1. The district should provide a carefully planned educational program for at least grades kindergarten through twelve.
2. Parents of children attending school should reside within the district and have a voice, legally and officially, in determining educational policies and programs.
3. The district contains a geographic area commonly referred to as the community which, under adequate leadership, may be coordinated into a working unit. It should be sufficient in size or in number of students to have effective and economical classroom units, as well as being conveniently appropriate to pupils in terms of distance traveled over well planned transportation routes.
4. The adequate district can attract and retain capable teachers and administrators.
5. The district possesses sufficient financial strength to meet its responsibility, when coordinated with the assistance or aid given by the state.
6. The district has its own board of education elected by the voters in the district.
7. The district makes possible a sound economical program for financing education. It not only has the money but it uses it to advantage.
8. It provides a rich program of education in harmony with the wide range of interests and abilities of children and youth in our present democracy.

Geography and the Small High School

1. Eighty percent of the 70 high schools in South Dakota with enrollments of 100 or less are in the East River area.
2. Eighty percent of the 78 high schools in South Dakota with enrollments between 101–200 are also in the East River area.
3. Sparsity of population should not be a causative factor in creating small school districts.
4. It is a factor when creating small attendance centers.

Legislation

1. Legally, reorganization is a function and responsibility of the state.
2. Successful reorganization has to be preceded by adequate legislation.

Types of Legislation

1. Permissive
2. Semi-permissive
3. Mandatory
    a. Mandatory legislation by the state legislature works best, according to some experts.

Costs

1. Eighty-three schools with enrollments from 1–225 showed a cost of $447 per pupil.
2. Thirty-four schools with enrollments over 676 showed a cost of $367 per pupil.
3. Elementary school costs decrease rapidly up to 100 pupils and continue to decrease, although less rapidly, up to 300 pupils.

Achievement

1. Batson test results consistently showed that achievement was at a much higher level in larger schools than in smaller ones.
2. The same result was found by the University of Iowa when comparing scores made by students on the Iowa Test of Basic Skills.
3. Mr. Cushman, in **The College of Education Record,** reports the same results from similar studies.
4. Theophilus in another carefully done study in Iowa concluded in his report that:
    —The smaller schools were spending 23 percent more money per pupil than the largest schools but were producing poorer results.
    —As the size of the school increased standard scores of quality increased.
    —Using 100 as a standard score, the quality score of a school of 180 was 77, while that of a school of 480 was 121.

Curriculum

1. An important factor that contributes to a good school district is the adequacy of its course offerings.
2. An analysis of course offerings of 1964 in South Dakota high schools showed the following to be true.
    —Vocational programs, in depth, in high schools with less than seven teachers are practically nonexistent.
    —Course offerings in the foreign languages where a student can take several years of one language are almost nonexistent in the school with less than 20 teachers.
    —In larger schools, teachers of social sciences tend to teach in their major field of training more so than teachers in small schools.
    —Course offerings in the English, Creative Writing, Debate, and Journalism areas are again reflected in size of schools.

Personnel

1. The teacher is the most important element within the confines of the school building.
   - —It seems to be a reasonable assumption that a two-year teacher would be a better teacher by having another two years of preparation.
   - —A well trained librarian should be better than a partially-trained librarian.

Summary

1. Curricular offerings of a school district are significant factors of an optimum educational system.
2. The small high school is designed for the college-bound; this is difficult to justify in a democratic society where public education is supposed to be for all the people.
3. Almost all education specialists believe that sparsity of population means that administrative districts should be larger in area, not smaller.
4. Studies in other states show that the quality of teaching increases with the extent of preparation.
5. A very significant factor in creation of school districts is the size of the school. Studies show achievement is greater as measured by standardized tests in larger schools than smaller ones.
6. A study of costs of school districts in South Dakota shows that the smallest school districts have the highest per pupil costs and at the same time provide a more limited curriculum.

PENNSYLVANIA'S PROGRAM PLANNING STUDY FOR THE INTERMEDIATE UNIT *

Background

1. The majority of local school districts completed reorganization during 1965–66.
2. The State Board of Education is currently studying the reorganization problems involved in the consolidation of the 67 county superintendents of schools offices into 25 or 30 intermediate units as directed by Appropriates Act 83–A, December 1, 1965.

Working Definition of the Role of the Intermediate Unit

1. Offer to act in the role of liaison agent between the local school districts and the Department of Public Instruction, thus allowing those districts maximum concentration on their local situation.
2. Volunteer to aid each district to develop the highest possible degree of independence through suggested refinements of their local organization and operation.
3. Assist all districts within the intermediate unit to develop optimum cooperation among themselves when mutual benefits are obtainable through such cooperation.
4. Cooperate with the Department of Public Instruction in promoting maximum cooperation among all the intermediate units in the state for the purpose of realizing significant benefits otherwise unobtainable.
5. Seek to improve the working relationships of the combined districts of the individual intermediate unit with other organizations and agencies serving the children and youth in its local area.
6. Keep abreast of and initiate leadership in the constantly changing and expanding world of new educational development.
7. Reinforce the public concept of our democratic procedure by serving as an example of the value of working cooperatively with districts and other agencies and organizations.
8. Provide assistance and sensitive leadership to local school districts without interference in the local administration of those districts.

Goals of the Study

1. The primary goal is concerned with improving the quality of the capabilities of the intermediate unit to effectively accomplish its planning and administrative responsibilities. Of equal importance is the need to strengthen the quality and the quantity of the services the intermediate unit provides to the local school districts.

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* "Program Planning Study for the Intermediate Unit". October, 1967. Mimeographed. C. E. Brewin, Jr., A. M. Neiman, J. K. Parker, R. L. Sissan, W. B. Castetter. Dr. Brewin is Assistant Superintendent of Bucks County Schools, 110-A Chapman Lane, Doylestown, Pennsylvania 18901.

2. The secondary goal is designed to assist the local school districts in Bucks, Cameron, Elk, McKean, and Potter Counties to more effectively accomplish their own planning and administrative responsibilities and to increase the value of their services to their pupils through a more efficient utilization of their existing resources.

Work Program and Time Schedule

1. Phase I—Intermediate Unit Planning Study, Phase I Progress Report, March, 1968; research, analysis of system requirements and completion of design elements of the PPB system.
2. Phase II—by November, 1968; development of the operating PPB System, including the experimental pilot operation, with analysis of cost benefits.
3. Phase III—by March, 1969; operational development of the PPB System in one or more areas.
4. Phase IV—by May, 1970; analysis of the experiences gained in Phase III and revision, as necessary, of the PPB System and related techniques; extension of the plan throughout Pennsylvania.

ANALYSIS OF SELECTED CHARACTERISTICS OF EMERGING INTERMEDIATE UNITS OF SCHOOL AMMINISTRATION IN EIGHT STATES

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Year established 1948 New York
1962 Michigan
1965 Colorado, Iowa, Nebraska, Texas, Washington, Wisconsin.
Being considered: California, Ohio, Oregon, Pennsylvania

Minimum pupil numbers

No specific number	2
5,000	1
8,000	1
10,000	1
20,000	1
25,000	1
50,000	1*
100,000	1**

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*Also recommended by Ohio Association School Administrators.
**Recommendation in Pennsylvania.

Purpose

To provide special services	5
To provide special education programs	2
To perform certain administrative duties for member districts	1
To provide consultative and technical services	1
To provide supplementary education services	1
To develop and provide long range planning	1
To develop specialized services	1

Governing body

Number of members: 5	2
5 to 7	1
5 to 7	1
5 to 9	1
7	1
Not to exceed 11	1
1 from each county plus four	1

Method of selection:

Selected by and from cooperating boards	2
Elected by cooperating boards	2
Selected from specific election areas and one at large	1
Selected from cooperating boards plus four members elected at large	1
Appointed by a joint committee from all member school districts	1
Elected by electors in special board member districts	1

Length of term:

Same as for local boards	1
4 years	2
5 years	1
6 years	2
To be agreed upon by each agency	1

Financial support

Receives state funds	7
Contracts with cooperating districts	5
Authorized to receive federal funds	4
Has taxing authority	3
Receive operating funds from cooperating districts	1
Receives matching funds from member districts	1
Receives funds authorized by county commissioners	1

Territory included

Multi-county	5
County or multi-county	2
More or less than a single county	1
All must be multi-county	1
Two or more school districts	1

Number of districts formed

Iowa	3	Wisconsin	19
Washington	5 of 15	Texas	20
Colorado	11	Michigan	60
Nebraska	19	New York	68 (14 are 2–5 counties)

Source: Inman, W. E., "Selected Characteristics of Emerging Intermediate Units of School Administration." Printed brochure, The Great Plains School District Organization Project, 411 South 13th Street, Lincoln, Nebraska 68508.

THE REGIONAL EDUCATION SERVICE AREA UNIT IN SOUTH DAKOTA

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History

1. South Dakota has had a "three-level" public school system of education for many years. This three echelon system has been made up of local school districts, the County Superintendent of Schools, and the State Department of Public Instruction.
2. The 1967 Legislature passed an act to provide for the elimination of the office of County Superintendent of Schools under certain conditions and provided for the transfer of duties to the State Board of Education and the County Auditors.

Need for a Regional Education Service Area Unit

The unmet needs of elementary and secondary schools in South Dakota relate to the inadequacies of local school districts. Prominent contributing causes for these inadequacies are:

1. Deficiencies in educational programs.
2. Failure to provide professional personnel.
3. Inadequate size enrollment.
4. Lack of financial resources.

Purpose of a Service Unit is:

1. To continue an unbroken, upward progression of all learners, with due recognition of the wide variability among learners in each aspect of their development.
2. To provide services that many local school districts cannot.
3. To provide a quality program with efficiency and economy.

Possible Services offered

In general, services should be articulative, coordinative, supplementary, and flexible. Listed below are a few examples of what might be termed services:

Special education
Instructional materials
Data processing
Vocational and technical programs
Curriculum development
Clerical services
(census, teacher certification registration, apportionment, social security information)
Resource Center

Federal programs writers
Inservice programs
Financial reports
Supervision
Educational media
Guidance-Psychologist
Testing
Transportation (bus drivers)
Health–speech–hearing
Cooperative purchasing
Adult education
Home-bound education

Characteristics of Strong Area Education Service Agencies

1. Area or Service Base that will make possible:
   –A maximum offering of programs and services so that present and future needs can be met.
   –Well prepared professional personnel to carry out a variety of needed special service programs.
   –Challenging opportunities for educational leadership.
2. A satisfactory pupil population base
   –The range is from 5,000 in Michigan to 125,000 in New York.
3. Special qualifications limiting the area base include:
   –A maximum radius of 60 to 75 miles.
   –An optimum area based on a natural socioeconomic community.
   –Maximum driving time of around one hour from the intermediate office to local district attendance centers.
4. Programs and Services
   –The providing of programs and services that cannot be supported at the local level with the desired quality, breadth, efficiency and economy.
5. Financial Base
   –Independent tax levying powers
   –Fiscal independency
   –Right to enter into contracts
   –Authority to enter into contracts
   –Eligibility to receive state support
6. Staffing patterns
   –Services of a highly specialized nature
   –Highly trained, specialized personnel
7. Legislative Structure
   –Flexibility for functional and organizational changes
   –Legal provisions for regional areas
   –Delegated fiscal independency
   –Delegated responsibility for administration and control

Suggested Educational Service Area Unit Criteria

–Seven units for the state of South Dakota
–Range of assessed valuation, $212,000,000 to $414,000,000
–Approximate assessed valuation per child, $15,000
–Pupil enrollment, 14,000-up

Major Benefits Resulting From a Statewide Network of Area Educational Agencies

1. Protect and promote local control and local determination.
2. Equalize and extend educational opportunities.
3. Assure economical and efficient operation of many educational programs.
4. Improve the quality of many educational programs.
5. Provide a needed change agent in education.
6. Promote the restructuring of school government consistent with developments in the public and private sectors.
7. Improve the coordination of local, regional, and statewide educational planning.

Summary—The Area Educational Service Agency

1. is the most feasible approach, at this point in history and in the foreseeable future, of overcoming existing inadequacies and of providing equal educational opportunities for all, regardless of birthright, and of protecting local control and local determination, important features of the American public school system.
2. is an improvement in the structure of a state system of education, a necessary prerequisite to the implementation of many needed innovations in public elementary and secondary education.
3. permits greater efficiency and economy in the provision of many educational programs and services.
4. is consistant and compatible with a number of major discernible trends in both the public and private sectors toward the area approach, and developments in inter-governmental relations.
5. is supported by recent legislation or interest in many states in all parts of the country.
6. has the support of a number of professional organizations and agencies. Among these is the American Association of School Administrators which in 1967 adopted a resolution supporting the Intermediate Unit—the strongest position which this organization has ever taken in its support.

A Final Word

The regional service agency in its newly emerging form is a product of efforts to meet new needs in education. Its benefits have been demonstrated in many parts of the United States.

If the Intermediate Unit is to meet its potential it must be developed, or restructured where it now exists, around educational purposes rather than around political logic and/or expediency. As indicated previously, the RESA concept, although not universally recognized, is one of the biggest movements in education in this country today. Its stay in court has ended. All that remains now is for the profession, the public, and state legislatures to recognize its potential and support its development.

One of the values of this research position paper is to establish the necessity of an Intermediate Unit and to provide services which local districts cannot give.

EMERGING URBAN PROBLEMS AND THEIR SIGNIFICANCE FOR SCHOOL DISTRICT ORGANIZATION IN THE GREAT PLAINS STATES

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As education becomes the central function in our society, the manner in which educational services are provided can no longer be viewed apart from the social and demographic context in which the schools function. These problems include:

- The proliferation of governments incapable of dealing with serious issues.
- Socioeconomic stratification and racial segregation.
- Fragmentation among socializing and educative institutions.
- The weakening of social and political consensus which has occurred as a result of the way urban society has evolved in the United States.

Stages in Metropolitan Development

- Early development—the small trading town that grew into a city with a distinct geographic and social structure.
- The structured city—with growth in commerce, industrialization, and the division of labor. Choice residential areas were located at the outer edges of the city.
- Differentiation between central city and suburbs—the appearance and settlement of politically distinct suburban areas, relatively exclusive residential areas at first. Parts of the city became obsolescent; public services are difficult to finance.
- The metropolitan complex—The suburbs grew rapidly (after World War II), industry decentralized, and low-income and minority groups moved into the inner core of the city. Major problems emerged:
  - —Many suburbs lacked the financial resources to build public facilities.
  - —Many suburbs unable to provide public facilities as quickly as desired by their rapidly growing populations.
  - —Many suburbs' residents lived beyond their means to enjoy the advantages of the suburban environment.
  - —Many established suburbs began to suffer deterioration.
  - —The physical unity with the metropolitan area brought with it the increase in air and water polution, noise, traffic congestion, and shoddy commercialization along major transportation arteries.

- Urban renewal stage—either as a corrective or as a preventive measure to assure the future viability of the social and political structure in our urban society.
  - —An increasing emphasis on social renewal and on development of human resources.

Metropolitan Development in the Great Plains States

- 45.5 percent of the population lived within 13 urbanized areas in 1960.
- Two cities, Kansas City and St. Louis, are among the 25 largest metropolitan areas in the United States and definitely are well into the latter stages of metropolitan development.
- The remaining 11 metropolitan areas have experienced only moderate increases in their central city and suburban areas.
- Metropolitan problems in the cities of the Great Plains states are likely to intensify in the future.

Major Problems and Imperatives Associated with Metropolitan Development

1. Fragmentation in the structure of local government.

State	Counties and S.M.S.A.	Number of Local Governments	Number of School Districts	Total Population Served (1960)
Iowa	Cedar Rapids (Linn County)	47	23	136,899
	Davenport (Scott County)	35	10	119,067
	Des Moines (Polk County)	84	27	266,345
	Dubuque (Dubuque County)	40	17	80,048
	Sioux City (Woodbury County)	41	22	107,849
	Waterloo (Black Hawk County)	36	25	122,482
Missouri	Kansas City (Jackson and Clay County)	97	45	710,206
	St. Louis (St. Louis City, St. Louis County, Jefferson County, and St. Charles County)	199	48	1,572,905
	St. Joseph (Buchanan County)	20	9	90,581
	Springfield (Greene County)	17	9	126,276
Nebraska	Lincoln (Lancaster County)	85	58	155,272
	Omaha (Douglas County, Neb.; Sarpy County, Neb.; Pottawattamie County, Iowa)	191	59	915,476
South Dakota	Sioux Falls (Minnehaha County)	155	119	86,575

Source; U.S. Bureau of the Census. Census of Governments: 1962. Vol. 1, Governmental Organization.

2. Socioeconomic stratification and racial segregation.
   - —Middle and latter stages of metropolitan evolution have left the central cities with a disproportionate share of the low-income population.
   - —It is less and less common to find people of differing economic status living in close proximity to one another.
   - —Socioeconomic stratification and racial segregation have become practically synonymous in much of the country.
   - —The racial components of social class developments have become the major domestic issue of our times.
   - —The socializing environment of the core city:
     - —From 1800 to 1940 the core city was the "port of entry" for migrants and immigrants. The American dream became a reality.
     - —Since 1940 social forces in the low-income sections of the big city now conspire to mire many youngsters ever deeper in despair and poverty:
       - *The highly motivating example of friends and relatives is lacking.
       - *The school, the church, and other social institutions no longer exert as positive an influence.
       - *The family unit has been weakened.
       - *The modern slum is now used as the "dumping ground" for society's misfits.
       - *The lower-class child is victimized because the inner-city environment does not provide him with the alternate social and psychological support available to the middle-income child.
       - *Stereotypes resulting from racist attitudes often have a particularly debilitating effect.
       - *Discrimination patterns have prevented even low-income Negroes who do acquire middle-class habits and skills from moving out of the ghetto to enjoy the full range of opportunities and security.
     - —The mass media today give much less support and reinforcement to parents trying to guide their children toward good behavior and social mobility.
     - —The net result is the creation among both whites and Negroes of an alienated and dispossessed people who have little hope for themselves or their children and little reason to maintain a commitment to traditional American approaches to political and social change.
   - —Statistics for the four Great Plains states show that:
     1. Poverty tends to be concentrated in the central city sections of metropolitan areas in Missouri and Nebraska.
     2. Poverty is a particular problem among non-whites in metropolitan areas throughout the four states.
     3. Incipient if not full-fledged "crisis ghettoes" have been allowed to develop in St. Louis, Kansas City, Omaha, and Des Moines.

3. Inadequate social environments for middle-income students in single-class sections of the city and the suburbs.
   - To some extent the relative isolation of the single-class, middle-income community is being purchased and maintained at the expense of the poor and the minorities in the central city.
   - The metropolis does not now provide an adequate environment in which to raise youngsters.
   - Juvenile delinquency, alienation from parents and school, sexual promiscuity, drug usage, and a variety of other undesirable behaviors are appearing with increasing frequency.
   - Children growing up in the protective cocoon of the homogeneous, middle-income community acquire negative stereotypes concerning the members of low-income and other minority groups in the metropolitan area.
   - Social scientists believe that it is extremely difficult and perhaps impossible to combat prejudicial and discriminating attitudes very effectively in the absence of direct contact and shared experience with those who are the victims of these attitudes.
   - Middle-income communities and schools serve as incubators of prejudice and engines for maintaining the very patterns of stratification and segregation which already have done so much to divide American society.
4. Weakening of the unifying norms which facilitate productive integration among citizens in the metropolitan area.
   - Common understandings are needed so that people can aid each other in solving one another's problems and in working together productively to achieve agreed-upon goals.
   - Without these understandings and perceptions it is difficult to see how social and human resources can be mobilized to maintain the viability of the metropolitan area.
5. Physical deterioration and the crisis in public finance in parts of the metropolitan area.
   - As metropolitan development proceeds, relatively large sections in the central city begin to deteriorate and pockets of poverty and blight in the suburbs begin to be enlarged.
   - In the central city the high cost of providing services to deal with social problems not encountered with equal severity in other parts of the metropolitan area places an extra burden on the municipality and tends to set off a vicious circle in which a level of public services inadequate to deal with social realities and the flight of the middle-class residents reinforce one another, thus creating a fiscal crisis for many governments in the city.
   - Nearly all the metropolitan areas in the Great Plains region are sufficiently far along in their evolution to be faced with serious problems of physical deterioration and fiscal incapacity in their central cities and in parts of their suburbs.

- —The challenges of urban physical and social renewal and of alleviating financial crises in the central city are present in metropolitan areas throughout the Great Plains states.
- —Unless there is widespread cooperative effort, first the central city and then many of the suburbs likely will face a spiral of continuing physical deterioration and progressive decline.

6. The need for cooperation to solve the major problems of the metropolitan area.
   - —The organization in an interdependent society is charged with tasks it cannot do alone.
   - —THE PROBLEMS WHICH ARE SO SEVERE IN THE MODERN METROPOLIS ARE ATTRIBUTABLE NOT SO MUCH TO LACK OF TECHNICAL KNOWLEDGE FOR COPING WITH THEM AS TO THE UNDERLYING ATTITUDES AND THE ESTABLISHED POLITICAL ARRANGEMENTS WHICH PREVENT US FROM APPLYING THIS KNOWLEDGE TO THEIR SOLUTION. HERE, THEN, IS A MAJOR CHALLENGE TO THE EDUCATIONAL SYSTEM.
   - —RECOGNITION MUST BE GIVEN IN THE FUTURE TO THE DESIRABILITY OF RESTRUCTURING THE EDUCATIONAL SYSTEM SO AS TO ENHANCE THE LIKELIHOOD THAT THE SCHOOLS CAN TAKE A MAJOR PART IN COMPREHENSIVE AREAWIDE EFFORTS TO COPE WITH THE PROBLEMS OF METROPOLITAN SOCIETY.

Implications for Education and for School District Organization in the Metropolitan Area

In accordance with the need to conduct certain educational functions on a metropolitan area-wide basis in order to solve the critical emerging problems of metropolitan society, officially designated metropolitan intermediate districts should be formed which should have the authority to perform the following functions for semi-independent member school districts in the metropolitan areas of Iowa, Missouri, Nebraska, and South Dakota:

1. Represent and act on behalf of member districts in working with other areawide and multi-jurisdictional organizations and institutions such as metropolitan planning commissions, highway departments, park and recreation agencies, social welfare departments, urban renewal departments, universities, and state employment units to achieve comprehensive planning and action aimed at developing the human and physical resources of the metropolitan area.
2. Raise a portion of revenues for public education through an areawide tax set at a level high enough to ensure that realistic sums of money are available for high quality educational programs for every boy and girl in the metropolitan area and that local communities or member districts are not unable to provide adequate educational opportunities due to special difficulties they may encounter in obtaining revenues

to operate their schools. At the very least, therefore, a metropolitan taxing authority for education would be expected to reverse the inequitable pattern which now exists in many of our states that provide funds to local school districts in such a way as to favor suburban school districts over central city districts which face the most difficult educational problems and hence have the greatest need for additional state aid.

3. Initiate and implement programs to reduce social-class stratification as well as racial and ethnic segregation in the schools of the metropolitan area.
4. Ensure that teachers and administrators in predominantly low-income schools are paid at least as much as or more than their colleagues in predominantly middle-income schools, and otherwise act to improve the quality of the instructional staff in schools serving large numbers of students from low-income families.
5. Employ specialized personnel and develop and sponsor instructional projects designed to make school curricula more challenging for students in all parts of the metropolitan area and more relevant for helping them solve problems which are of immediate concern to modern youth.
6. Develop and implement projects to introduce and provide instruction related to the improvement of human and intergroup relations in classrooms throughout the metropolitan area.
7. Collect areawide educational statistics and develop improved measures to assess the quality of the schools and determine how well they are functioning.

A STUDY OF ADMINISTRATIVE COSTS IN SELECTED SCHOOL DISTRICTS OF IOWA, MISSOURI, AND SOUTH DAKOTA

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Purpose: To determine whether there were significant differences in per pupil costs of **central** office administration of the ten largest, ten median, and ten smallest districts in Iowa, Missouri, and South Dakota for the year 1965–66. (Data for Nebraska was incompatible with that collected for the other three states and could not be used).

Administrative costs: salaries, fringe benefits, and personal expenses, central administration. (Costs for office equipment, supplies, and fixed charges were excluded). Official archival reports of each state were used, supplemented by telephone or mail questionnaires to assure complete cost figures.

Enrollments, 1965–66.

No. and size	**Iowa**	**Missouri**	**South Dakota**
No. of districts	455	247	215
Largest enrollment	44,954	123,733	18,124
Median enrollment	714	693	321
Smallest enrollment	195	96	39

Mean per pupil costs for administration

Largest ten	$11.20	$ 8.08	$13.71
Median ten	33.00	23.82	25.48
Smallest ten	43.80	77.85	31.71
Range: low	5.26	3.51	6.92
high	85.40	100.62	65.00

Mean per pupil costs for all central administration
(general administration, special services, educational supervision)

Largest ten	$35.35	$ 17.80	$17.09
Median ten	79.87	29.98	29.11
Smallest ten	73.35	78.63	32.99
Range: low	22.45	10.16	9.73
high	244.07	100.62	65.06

Note: Median and small districts had few expenditures beyond those for general administration.

Mean number administrators, educational supervisors and special services personnel

Largest ten	33.7	40.8	4.7
Median ten	4.8	2.5	.9
Smallest ten	2.8	1.0	.7
Range: low	1.0	1.0	.33
high	69.7	139.0	17.0

Pattern: large districts—a few administrative employees, many more special services personnel, and a slightly smaller number of educational supervisors; median districts—one or two administrators and an occasional special services person or educational supervisor; smallest districts—one administrator, the superintendent, who frequently was teaching part time, and no special services person or educational supervisor. Some services are provided to the central administration in small districts by county or intermediate districts.

Mean number of secretaries serving administrators, educational supervisors and special service personnel

Largest ten	22.1	30.7	no report
Median ten	2.2	1.3	
Smallest ten	.8	1	
Range: low	0	1	
high	86	106.5	

Mean per pupil cost for educational supervisors and special services personnel

(special services personnel data in South Dakota not available).

Largest ten	$11.09	$ 4.58	$ 3.83
Median ten	6.31	5.21	3.63
Smallest ten	1.21	0	5.00
Range: low	0	0	0
high	22.05	10.77	39.20

Mean per pupil costs for secretarial purposes in Iowa

	General Admin.	Education Supervisors	Special Services
Largest ten	$ 2.39	$ .81	$1.75
Median ten	7.31	5.54	3.01
Smallest ten	10.89	0	0

Summary Statements

1. As district enrollments drop, per pupil costs for central administration, excluding costs of administering attendance units, increase rapidly.
2. Large districts spend more for special services than for supervision, and a still smaller amount for general administration.
3. Median sized districts spend more dollars for general administration than for special services or educational supervisiors.
4. Smaller districts of each state spend nothing for special services; a portion of the administrator's time is devoted to teaching.

5. Per capita expenditures for both general administration and total central administration vary inversely with district enrollment.
6. Small and median-sized districts do not have the services of educational supervisors or personnel assigned to special services.
7. Districts with 10,000 or more students spend more money for supervision and special services than for general administration.
8. Districts of median and smaller size schools spend most of their total administrative budget on superintendents, assistants, and secretaries.
9. Only the larger districts included in the study offered a broad range of administrative services.

Conclusions and Recommendations

1. Many small- and median-sized districts are not as effectively operated, either from the economic point of view or from a consideration of opportunities for effective educational programs, as are large districts.
2. Administrative costs of small districts is taking too big a slice of the total educational expenditure ($80–$100 per child out of a total of $500 to $600; also, it is too much compared with $10–$20 per pupil in a large district).
3. In addition to having lower per pupil costs, it would appear that larger districts obtain the services of better, more qualified personnel.
4. It is expensive to operate schools with small enrollments. For example, only one of the thirty large districts studied expended as much per pupil for administrative salaries as the average per pupil expenditure for median-sized districts.
5. If services from the central office are considered to be important, then district enrollments must be 3,000 or more.
6. Reorganization on the basis of state median enrollments would not suffice, since these sized districts do not provide the supervision or special services.
7. If pupil economy is a factor in school district organization, then reorganization must be based on K–12 enrollments of at least 3,000 to 5,000 pupils. Larger districts of 20,000 or more are desirable whenever such enrollments can reasonably be secured.
8. More authority should be given by law to the state education agency to plan and direct reorganization of all school districts.
9. There is an urgent need for more cost analysis of educational services.

Selected Quotes

"Median district costs were double or triple those of the ten largest districts."

"Small schools were spending amounts from three to almost ten times that of the large-district mean per pupil expenditure."

"Median and small districts had few expenditures beyond those for general administration (educational supervisors and special services personnel)."

"Obviously pupils enrolled in large districts had access to more varied and complete administrative services."

STATE FINANCIAL SUPPORT AND SCHOOL DISTRICT ORGANIZATION IN MISSOURI

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Purpose: To examine the state support of and distribution of state funds to public schools, particularly as to the operation of the Foundation Program affecting continued reorganization of school districts.

Development of state support:

—In 1837 the common school fund was created.
—In 1839 the common school fund was replaced by the state school fund distributed on the basis of 60 cents per child enumerated.
—The Kelly Act of 1853 provided for one-fourth of the state revenue to be distributed to school districts.
—The Constitution of 1875 provided that not less than 25 percent of state revenue be applied annually to support public schools.
—In 1887 the General Assembly appropriated 33⅓ percent of the general revenue for schools which continued until 1955.
—The 1931 law established an equalization basis for distribution of state money.
—The 1955 Foundation Program provided for state aid to be distributed on three levels: equalization, flat grant, and teacher qualifications.
—Increased state aid to 1966 has resulted in a 27 percent increase on the equalization level, 77 percent for the flat grant and 64 percent for teacher incentives.
—Missouri is distributing state aid under 15 different classifications.

School district classification size:

—The average Class A district enrolls 300 to 600 pupils.
—The average Class AA district enrolls 900 to 1,200 pupils.
—The average Class AAA district enrolls 2,000 to 3,000 pupils.

Selected counties studied:

—Ninety-eight twelve-year school districts and 66 elementary districts in 22 counties were examined.
—These districts continued 249,719 pupils or about 24 percent of the pupils enrolled in Missouri schools 1966–67.

Some findings:

—The assessed valuation per pupil enrolled ranged from $4,179 in Texas County to $15,642 in Worth County.

—The Class A districts enrolled an average of 465 pupils, Class AA 1,233 pupils, and Class AAA 5,174 pupils.

—The per-pupil transportation cost ranged from $26 to $168.

The ten districts with the lowest transportation cost averaged $32 per pupil.

The ten districts with the highest transportation cost averaged $113 per pupil.

Districts with lowest cost were in counties of more dense population and districts with highest cost were in counties of more sparse population.

—The current educational cost per pupil average daily attendance ranged from $313 in a high school district enrolling 1500 pupils to $866 in a high school district enrolling 154 pupils.

The ten school districts with the smallest average daily attendance spent $658, while the ten districts with the largest average daily attendance spent $459 per A.D.A.

Relative to classification the Class A districts spent an average of $531 per A.D.A., Class AA $470 and Class AAA $468.

—The ten largest districts in A.D.A. spent $12 per pupil for administrative cost. The ten smallest spent $62 per pupil. The small districts are spending five times that of the larger districts for administrative cost. The small school districts spend less for instruction than the large school districts.

Inequality of state aid to schools:

—Excessive variations exist in the amount of state aid per pupil received by the districts.

—The state aid plus the revenue from a $1.00 levy amounted to $189 per pupil for the ten districts with the smallest assessed valuation per pupil compared to $312 for the ten districts with the largest assessed valuation per pupil. The wealthy districts had $123 more per pupil to spend for the minimum $1.00 levy than the poorer districts.

—Less than 20 percent of the Foundation Program money is expended under the Equalization Quotient.

Recommendations:

1. The Equalization Quotient should be established on one level at not less than $220 per pupil.
2. State aid now granted for teacher preparation should be eliminated.
3. The Flat Grant should be increased to $165 per A.D.A.

4. State aid for transportation should be on a graduated scale to a maximum of $90 per passenger pupil per year.
5. As an incentive for district reorganization an approved enlarged district should be eligible to receive from the state 20 percent of the cost of a building times the ratio of state valuation per pupil to the district per pupil valuation with a minimum of 10 percent and a maximum of 50 percent of approved cost.
6. Money collected for textbook funds should be distributed as a part of the Flat Grant.
7. State aid should be based on current A.D.A. rather than on that for the preceding year.
8. The present statutes for Teacher Education and Orphans' Aid should be repealed.
9. The accounting funds, teachers, incidental, and textbook funds should be combined into one fund known as operations.
10. The building and debt service funds should be combined into one fund known as building fund.

AN EVALUATION OF FINANCIAL SUPPORT FOR THE PUBLIC SCHOOLS OF SOUTH DAKOTA

Gordon Nelson
Executive Secretary of the Associated School Boards of South Dakota

Financial support of education in South Dakota must be viewed in the milieu which fostered American public education—one in which state control is firmly established, but also in which local participation plays an important role. However, local participation should not be allowed to circumvent equitable financing of whatever number of years of public education is desired by the public. In South Dakota, financing twelve years of public education equitably is circumvented by an organizational structure of common (K–8) and independent (K–12) school districts. An examination of the 1965 tax year showed that for twelve years of public education the median dollar of assessed valuation assumed a burden of 32.5 mills in independent districts, but only 17.5 mills in common districts.

In 1966, the South Dakota Constitution was amended to allow the Legislature to classify all agricultural property in a special class for school tax purposes. The 1965 and 1967 sessions of the Legislature set up a formula to levy 8 mills on all property in an independent district with increasing mills on a one-to-two ratio, reflecting the greater assessed valuation per rural school child, and with maximums of 24 mills on agricultural property and 40 mills on non-agricultural property.

These actions were only a partial answer to the finance problem since it encouraged school district reorganization. A review of 1967 mill levies in twelve year school districts, 25 percent, or 53, of all such districts are levying the maximum. In addition, there are 31 more that are within the last 5 mills of the maximum, making a cumulative total of 84, or 41 percent. Under-assessment of property, lack of an adequate tax base, and limited school enrollment were found to be contributing factors. The 1968 session of the Legislature enacted a provision returning a modicum of authority to the State Board of Equalization, enabling it to raise the value of property assessed under the state average by local Boards of Equalization, but only reorganization can correct the other factors, and progress here depends on ratification of a measure passed by the 1967 Legislature and referred by petitions to a 1968 vote of the people.

Tax sharing and equalization are natural responsibilities of state government to local governmental subdivisions; these functions cannot be performed by the local subdivisions. Tax sharing occurs when the state collects a state tax and returns the revenue to the local areas from which the revenue came. Tax sharing may find its greatest effectiveness in the state aid program. Tax sharing could also be effected by the state's providing a means (local sales, income and admission taxes) for the local community to get at its nonproperty tax resources; but in any case where property tax revenues do not bring sufficient revenue for operating the school, the local nonproperty tax resources are usually not strong enough to provide any substantial revenue. The equalization function is often so sophisticated that it is easily misunderstood.

Although the dollar amount of state aid has increased substantially since its inception, an examination of the total state aid for public education in South Dakota reveals that state government has not maintained a constant fiscal importance in relation to the total operating expenditures of the public schools. One sees from the following selected years that state aid declined dramatically until 1960 and is only now showing signs of assuming some degree of meaningful responsibility.

Year	Total State Aid for Public Schools	Total Operating Expenditures	Aid as a Percent of Operating Expenditures
1940–41	$ 2,389,800	$11,325,491	21.10
1950–51	3,552,913	25,146,670	14.13
1960–61	5,048,919	52,396,571	9.63
1966–67	10,590,759	75,395,178	14.05

Senate Bill 104 enacted by the 1968 Legislative Session corrected many of the faults of South Dakota's first minimum foundation program. Major changes corrected a formula error, used linear regression as a means for allocating and updating classroom unit credits, simplified the equalization formula, and applied factors derived from a sales-assessment ratio study of real property to adjust the valuation of real property only. Previously these ratio factors were applied to the total valuation of the district in the determination of required local effort. These changes were all a part of the detailed recommendations of this study.

The necessity of the state's assuming a greater share in the financing of public education can be seen in the inability of local financing to provide sufficient revenue for the increasing costs of public education. Four counties were selected as tests for the ability of the agricultural and non-agricultural property classification and tax formula to solve the obvious financial problems. In these counties located in various parts of the state, most independent districts are at the maximum levy, but district reorganization has attained varying stages of progress. When all school districts in each county were computed as one in a proposed reorganization for the current fiscal year with the assumption that most of the savings in reorganization would be offset by improving the educational program in the former districts, the mill levies for the new county-wide district were very close to, or over, the legal maximums.

Discussion of a new revenue source centers about an income tax, and all such proposals have property tax replacement provisions, such as a repeal of personal property taxation. This study examined the 1967 assessed valuations of all independent districts, removing from the personal property classification such real property as utilities and buildings on leased sites. The elimination of such qualified personal property from the tax rolls would necessitate an approximate $9,000,000 in state aid payments as compensation for the loss of revenue to the present independent school districts only. This figure does not include revenue loss to common school districts, the cities, and the counties.

The distribution of such compensatory state aid raises several problems. The relationship of such qualified personal property valuation to the total valuation of a district is not constant for all independent districts. A brief examination indicated a variety of percentages ranging from 12 percent to 25 percent regardless of the size of the districts. The distribution of this type of state aid requires further detailed examination. It is doubtful that the present state aid distribution formula would equitably replace this loss of revenue.

Income tax proposals will need rather complete study and examination before enactment, but it is obvious that much will be expected of any additional or new revenue sources in effecting property tax relief, property tax replacement, and increased state aid to the public schools, not to mention the contribution such revenue sources would be expected to make to other responsibilities of state government.

PART VI

RELATED STUDIES AND REPORTS

AREA PLANNING IN IOWA

Eber Eldridge*
Iowa State University
Member of the Governor's Planning Office

Purpose

1. To indicate the purpose for creating the Governor's Planning Office.
2. To indicate the basis for determining the 16 areas in Iowa.

Factors Leading to Area Planning in Iowa

1. Services and facilities that the people in Iowa need to have now, or may need in the future, cannot be duplicated in every one of the 950 cities or in every one of the 99 counties.
2. Voluntary associations and governmental subdivisions have been formed on an area basis, including:
   - —Tenco Association
   - —The Midcrest
   - —The Niak
   - —The vocational-technical schools and community colleges on a 16 area basis.
3. For some purposes there needs to be a grouping of counties. A recent editorial in a weekly publication read as follows, "Recent studies have brought out the fact that the southern Iowa area has some common problems that are bigger than one county . . . . It means a grouping of counties to give us a large enough economic base to buy high quality services, institutions and recreations at a low cost. It gives us a chance to have a variety of services that our individual towns cannot provide."
4. State Services now on a multi-county basis have no common basis for groupings of counties. Such services include:
   - —Vocational-technical schools
   - —Community colleges
   - —Development commissions
     - Recreational regions
     - Tourism regions
   - —Department of Health Nurse Supervisors
   - —State Mental Health Institutes
   - —The proposed judicial district
   - —Conservation commission
   - —University extension program
   - —Economic development regions
   - —Department of Health
   - —Regional supervision districts
   - —Department of health regional engineers
   - —Highway Commission Districts

   No two multi-county areas use the same boundaries. Each operates in complete isolation.
5. Establishment of common regions in the state for most governmental services would make possible:

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*Excerpts from an address presented at the four-state conference on "Meeting the Needs of Youth," November 29, 1967, Lincoln, Nebraska.

- —Communication between the various services, which is badly needed.
- —Coordination of activities.
  Example: One state agency was planning the development of a highway in one area, while another was planning to flood the same area.
- —Communication, coordination, and planning is needed in, between, and for the 130 agencies, boards, and commissions.

6. The state legislature has given consideration to other regional projects (multi-county), including:

—Regional jails	—Area hospitals
—Area mental health clinics	—Area parks
—Multi-county recreational areas	—Area airports

7. Some Federal programs specify multi-county areas. If the state has not designated such areas, the federal program will designate its own.
8. The decentralization of the state function through multi-county areas:
   —Will bring the state government closer to the people.
   —Will strengthen local governments through joint planning, and joint interaction.

Identification of the Areas

1. The identity of multi-county areas already accepted by the people should be preserved.
2. In general, one hour's driving time determines the center for one area (for convenience of service).
3. Enough counties should be grouped together to provide an adequate economic base.
4. There is a clustering of services in particular counties or areas that tend to identify that area as a center.
5. Major cities tend to become functional economic areas, i.e., people of one area tend to identify for some purpose with the city in that area.
6. Sixteen cities were identified as area cities in Iowa.

Establishments of the Areas

1. The areas will be established by Executive Order.
2. Establishment by Executive Order is desirable, because:
   —it can be changed when the need arises.
   —establishment by a legislative act establishes a high degree of rigidity, and lacks flexibility for changing needs.

Projection for the Future

1. There is no intent at this time for the area districts to replace existing governmental structure (city and/or county).
2. Some people say that the function of county governments will change, just as many township governments have changed.
3. The 16 areas will not fit every purpose, but they will facilitate consolidation, coordination, communication, and inter-governmental planning and development in the interests of both services to the citizens of the state and for returns on the tax dollar expended.

THE IMPLICATIONS OF MANPOWER SUPPLY AND DEMAND UPON VOCATIONAL-TECHNICAL EDUCATION IN THE WEST NORTH CENTRAL STATES REGION

Edward B. Jakubauskas
Professor of Economics
Director, Industrial Relations Center
Iowa State University

Population Changes

1. Population/labor force profile:
    - –Population Region VI–7% of U.S. population.
    - –A wide dispersion of population in relation to geographical size.
    - –A very rural farm and non-farm composition.
    - –Access to vocational education facilities. Important for those who wish to obtain or upgrade skills by a widely dispersed population.
2. Major population/labor force movements:
    - –Considerable geographical mobility within the region.
    - –Mobility within the region:
        - –1950–50% of region's population classified as urban (7.3 million out of 14 million).
        - –1960: Urban ratio increased from 50% in 1950 to 60% of total population.
        - –25% decline in rural farm population.
        - –Net loss: Rural population–400,000
          Net gain: Urban–1.7 million
    - –Movement out of the region
        - –20% of the population moves every year.
        - –70% takes place within the same county.
        - –15% across county lines but within the same state.
        - –15% across state lines.
3. 70% of in-migrants from different states moved into urban centers.
    - –Population loss through migration:
        - –South Dakota 17%.
        - –Iowa 8.9%.
        - –Nebraska 8.8%.
        - –Missouri 3.3%.

4. Characteristics of shift from rural to urban.
   - There are fewer people classified today as "rural-farm," and there will be even fewer in the future as technology and farm consolidations further erode the "rural-farm" population. Other studies have shown that displacement will continue at a rapid pace right into the late 1970's and early 1980's;
   - For those who remain in rural areas, most of the job opportunities will be in non-farm work;
   - Pressures in urban centers of growth will demand newer skills and different skills from those found in rural areas;
   - For the future, most of our population will face urban problems, and will have to be equipped with vocational skills suitable for an urban labor market.

Out-Migration of Youth

1. The most highly mobile—younger age people, 1950–1960, age 18–24:
   - South Dakota (20%)
   - Iowa (14%)
   - Nebraska (12%)
   - Missouri (5%)
2. Urban areas in Iowa and the Dakotas experienced significant declines.
3. Rural areas are heavy losers of young people
   - Differences between young people who move out and those who stay: "Some studies seem to suggest that young people who leave rural areas are more intelligent, more active in organizations, and show greater leadership ability. If this should be true then we would be exporting a highly valuable resource."

Labor Force Changes 1960–1970

1. From 1960 to 1970 the labor force of women 14 and older will increase by 30% about four times as great as that for men.
2. The rate of increase for younger women age 14–24 will increase by 68%, or in absolute numbers by 270,000.
3. Less dramatic but nevertheless significant will be the increase in the labor force of young men—50% increase for those age 14–24 or about 335,000. This age group of young men and women totaling 600,000 will constitute the major "target" for vocational educators in the region.

The Demand for Labor

1. Occupational-Employment Changes
   - Composition of employment is still heavily concentrated in agriculture.

- Rate of decline in agricultural employment not as great in this area as in other regions of the nation.

2. Non-Agricultural Employment:
   - 25% in this region compared with 71% and 64% in the Mountain and Pacific states (1947–1962).

3. Manufacturing
   - Rate of increase (16.3%) exceeded national average from 1947–62 (7.8%).
     - South, Pacific, and Mountain states experienced far greater growth.
   - Service Employment
     - Significant areas of employment growth from 1950 to 1965: finance, insurance, real estate; education and government have been industries of substantial employment growth. Wholesale and retail trade employment has increased only moderately, while transportation and public utilities have actually declined from 1950 to 1965. Construction employment increased moderately over this period.

Summary

1. Population Changes
   - Moderate population growth, with continued out-migration from the region;
   - Less than average population growth in comparison with other regions;
   - Large numbers of youth to educate—primarily for "export" to other states;
   - Continued migration of population from rural to urban areas within the region;
   - Increased urbanization of certain growth centers.

2. Labor Force
   - Entry of large numbers of women into the labor force;
   - Rapid increase in number of youth entering the labor force, particularly in the 1960's;
   - Continued reduction of farm employment at a rapid rate, at least until 1980;
   - Employment opportunities expanding in non-ag—particularly in the service industries;
   - Expansion of manufacturing employment at a rate greater than the national average.

3. Summary
   - In general we can characterize Region VI as an area of slow change-- slow growth in some areas—slow decline in others. No rapid breakthroughs which would alter the patterns outlined above appear to be visible on the horizon.

Implications for Vocational Education

—Although we should continue to emphasize vocational education in agriculture (since the region will continue to have a heavy emphasis of activity in this sector), some resources ought to be allocated to newer areas of employment.

—These newer areas of employment will be found in manufacturing and the service sector and will also be located in urban centers.

—Increased emphasis should be given to vocational education for women.

—Occupational-employment shifts will entail a demand for retraining. Vocational education should be aware of the need for retraining those who will face employment changes.

—The relative stability of population and labor force in Region VI will make it possible for policymakers to avoid the pitfalls of crash programs, and to give attention to the development of quality programs.

—Because of the heavy outmigration of population—especially youth —continued financial support from the federal government appears to be justified and necessary.

EFFECTIVE LEGISLATION FOR SCHOOL DISTRICT REORGANIZATION

Arthur L. Summers
Missouri State Project Director
Missouri State Department of Education

Three Types of Legislation

1. Mandatory: Establishment of school districts by legislative action without referring the action to the voters for approval.
    - a. Direct mandatory legislation, with the legislature establishing the school districts.
    - b. Indirect mandatory legislation wherein the legislature creates a state or county agency, and requires such agency to establish school districts.
2. Semipermissive: Mandatory legislation in part by requiring that essential preliminary steps be taken in planning and proposing a pattern of school districts, with approval or rejection dependent on action by the voters.
3. Permissive: Reorganization of districts dependent on initiative to be taken by the voters at the local level.

States Enacting Laws (Examples)

Mandatory: Florida, Mississippi, Nevada, New Mexico, Pennsylvania, South Carolina, Virginia, West Virginia.
Mandatory—County Agencies: Kansas, Wisconsin.
Semipermissive: Iowa, Missouri, Nebraska, South Dakota.

Characteristics of Mandatory Legislation

1. Plan: based on a statewide study showing educational needs and the kinds and sizes of school districts required to meet these needs.
2. State agency: is given the duties, powers, and authority to oversee and assist in completion of the reorganization program.
3. Boundaries: described by legislative action.
4. Financing: legislation usually provides for local and state financing which encourages and assists new districts.

Characteristics of Semipermissive Legislation

1. State agency: Provisions for establishing at the state level an agency (usually within the existing state department of education) responsibility for assisting, counseling, reviewing, and approving or disapproving reorganization plans prepared by county agencies at the county level.

2. County agency: Provisions for creating at the county level a county agency (usually a county board of education) and placing with it certain mandatory powers and duties to prepare district reorganization plans, hold hearings, and call elections for the approval of plans by the voters.
3. Local option: Provisions permitting the voters within the affected areas to ratify or reject the proposed plan of district organization.

Powers and Duties Normally Assigned to State Agencies

1. Developing and establishing principles, policies, and procedures for a statewide program of district reorganization.
    a. Directing surveys and providing essential information.
    b. Providing plans for procedures, standards, and data.
    c. Preparing manuals that set forth principles and standards to guide county agencies and procedures to be followed.
2. Providing professional assistance to county agencies responsible for studying and preparing plans for the counties.
3. Appointing county agency or appointing a new county agency when such agency fails or refuses to prepare and present plans for district reorganization.
4. Granting county agency an extension of time beyond that prescribed in the law if the state agency deems necessary.
5. Receiving, reviewing, approving, and rejecting county plans for reorganizing districts.
    a. Reporting to the agency (1) when plans are unsatisfactory; (2) the findings, reasons, and suggestions for improvements.
    b. Receiving plans and reporting findings or action of state agency within the period of time prescribed by law.
6. Making reports to each session of the legislature, together with any recommendations for legislation.
7. Completing various steps of the program within specified time limits.

Characteristics of County Agencies

1. Nearly all of the states with semipermissive legislation either placed the responsibility for district organization with the existing county educational agency or created a county agency for this purpose.
2. The number of members varied from five to thirteen, with five to nine being the most common.
3. The method of selecting members to the county agency varied:
    a. Elected by the existing school board members.
    b. Appointed by the presidents of existing school boards.
    c. Elected by popular vote.
    a. Some provided for a specified period of time.
    b. Some provided for an indefinite period of time.
    c. The more recent laws—
        —To serve for an indefinite period of time, or
        —To serve until the program of district organization is completed.

5. In Wisconsin an agency school committee of seven members is appointed to serve all the territory of several counties that belong to the cooperative educational service area.
6. The county superintendent usually serves as the secretary to the county agency.

Duties and Powers Normally Delegated to County Agencies

1. To make a thorough study of existing school districts, giving consideration to all important and related factors.
2. To prepare plans for reorganizing the districts.
3. To submit proposed plans to the state agency for approval.
4. To hold public hearings on tentative and on completed plans before they are submitted to a vote of the people.
5. To submit the proposed plans to the voters.

Important Features of Semipermissive Legislation

1. The existing state educational agency is delegated certain responsibilities and duties.
2. County agencies are established.
3. The County agency must prepare plans for school district organization.
4. The County agency must present prepared plans to the state agency.
5. The state agency must approve, or disapprove, plans prepared by the county agency.
6. Public hearings are generally required.
7. Time limits are established, (usually from six months to two years). (Colorado, Iowa, and Nebraska have no time limits).
8. The county agency (6 states) presents the plans to the voters (in one state if petitioned by a given percent of the voters).
9. A simple majority of the voters for adoption is desirable.
   (4 states–simple majority in the proposed district; 7 states–majority in two or more of the affected districts).
10. If proposals are rejected, some states provide for the preparing and submitting of second and subsequent plans. Some provide for the establishment of districts without a resubmission to the voters. In Kansas the school board of an existing high school district within the proposed district could petition the state superintendent to establish an enlarged district without submitting the proposal to the voters.
11. A few states provide direct grants (financial incentives) to encourage the adoption of district reorganization plans:
    a. An additional allocation within the foundation program.
    b. Grants of money for school building construction.
12. Bonded indebtedness is usually handled in one of three ways:
    a. The debt remains an obligation of the original district.
    b. The debt is assumed by the entire new district.
    c. The solution of the bonded debt is to be a part of the proposed plan when presented to the voters.

Legislation Concerning Size

1. Many state laws do not specify minimum size.
2. The most common legislation requires that the districts be of such size that they may provide adequate educational programs at an economical level of operation.
3. Selected states have established a minimum size by legislative action:
    a. 200 pupils (or 100 square miles)—Missouri.
    b. 300 pupils—Iowa.
    c. 400 pupils (or 200 square miles)—Kansas.
    d. 1,000 pupils (or 144 sq. mi., or $5,000 assessed valuation per pupil)—Indiana.
    e. 2,000 pupils—Michigan.
    f. 2000 pupils, unified district—California.
    g. 4,000pupils—Pennsylvania.
    h. 300 high school pupils—Maine.
    i. 500 high school pupils—Wisconsin.

Selected Quotes

"As far as statewide planning and establishing of adequate school districts are concerned, permissive legislation has been the least effective.

"Marked improvement in school district organization on a statewide basis has been preceded in most instances by a thorough study of the state's school system.

"Some 24 states have adopted legislation forcing the abolition of certain size districts.

"Laws which abolish districts of specified limitations do reduce the number of districts in a state, but do not provide for a careful, systematic plan for overall adequate school district organization.

"The effectiveness and adequacy of a state program of district organization may well depend upon the comprehensive power and duties given to a state agency and the financial assistance necessary to the agency performance of these powers and duties.

"[Semipermissive] laws are most effective when they provide a clear, simple presentation to the voters, and when they require no more than a simple majority for approval."

STATE DEPARTMENT LEADERSHIP FOR CURRICULUM DEVELOPMENT*

Edward T. Brown, Director
Regional Curriculum Project
Atlanta, Georgia

The Regional Curriculum Project

Project title: Facilitating desirable changes in the educational program of children and youth (A Title V, 505 Project).

Member states: Alabama, Florida, Georgia, North Carolina, South Carolina, and Tennessee.

Purpose:

1. Strengthening the leadership role of state departments of education for curriculum improvement.
2. To measure the gains or values evolving from the work of state departmental personnel at the local level.
3. To establish guidelines whereby state departments of education may serve most effectively for affecting and creating desirable educational programs for children in the local school systems.

Staff:

- Project Director
- 2 Research Personnel
- 1 Staff Artist
- 6 State Coordinators
- Assistant Director
- 2 Writers
- Secretaries
- 4 Local School Project Leaders in each of the six states

Studies and Projects

1. Structure and functions profile of the State Department of Education.
2. Perception of role by consultants in the State Department of Education.
3. Attitude of local school people toward the State Departments of Education.
4. Purpose and use of curriculum guides.
5. Consultant knowledge and use of media.
6. Study of attitude of State Department personnel toward their services.
   —Analysis of how consultants perceive their role.
   —Analysis of how consultants performed their role.
   —Identification of the people with whom the consultants worked.
7. Development of a six-state curriculum guide in language arts, grades Pre-K through 12.
8. Role of the consultants with paraprofessionals.
9. Analysis and evaluation of state innovative and exemplary schools.

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*Extracts from an address delivered at the four-state conference on "Meeting the Needs of Youth," November 29, 1967, Lincoln, Nebraska.

Selected items from Role Perception of State Consultants

1. Similarities outweighed the differences between the six states.
2. Greater differences existed between the curriculum section and the vocational section in each of the six state departments of education:

Legend	Curriculum Consultants	Vocational Consultants
Worked with (at the local level)	Group of teachers	Individual teachers
Primary contact	Supervisors	Principals
Purpose	To improve classroom instruction	To raise program quality
Service request received from	Supervisor or district office personnel	Teachers
Most frequent activities	Planning workshops Participating in workshops	Visiting classrooms Assisting in writing federal programs Orienting new personnel Selecting textbooks
Most important activity	Visiting classrooms Assisting in the development of the curriculum	Visiting classrooms Orienting new employees

3. Extensive use of the WATS system in all states for initial consultation and for follow-up.

Major Problems Encountered

1. The development of the project structure in six widely different states.
2. The development of profiles of role perception.
3. The lack of understanding by State Department personnel concerning the nature and purpose of the six-state project.
4. The initial defensive attitude of departmental personnel.
5. Fear that their state might not show up well in comparison with others.
6. The heavy work load of consultants within their own department that prevented or hindered interstate project participation.
7. Inability of personnel to reach decisions—the need for time to return to their office for study and meditation.
8. Expecting to receive answers rather than to serve as participants in problem solving.

Lines of Communication for Dissemination of Findings

1. Private report back to the State Superintendent.
2. Report directly to the State Department personnel in open meeting.
3. Report regional data to departmental leadership at regional meetings.
4. Summer workshops with representation from the six states to study and analyze the data.

General Outcomes

1. Not all of the good things are to be found in any one state.
2. A regional staff must work together with the people in each state before they can begin to be really effective.
3. An atmosphere of innovation pervaded the six-state summer regional conference.
4. The limited time of personnel required reporting Project information on a "Reader's Digest" basis.
5. Trends appear to include the following:
    a. A changing role of function by State Department personnel from supervision or administration to that of a resource person with leadership emphasis.
    b. Working with local supervisors rather than teachers.
    c. Toward workshop type activities rather than classroom teaching and demonstration.
6. There is an emerging acceptance within the several state departments of education of the need for and the value of interstate travel as opposed to "one out-of-state trip per year."

RURAL IOWANS VIEW EDUCATIONAL ISSUES

Al Bull, Editor
Wallaces Farmer Magazine

In January, 1968, the Wallaces Farmer Magazine conducted a survey of rural Iowans regarding a number of issues ranging from politics to farm concerns. A series of ten questions relating to current educational issues, developed by the Iowa Director, Great Plains School District Organization Project, were incorporated in the questionnaire.

A stratified random sampling of rural Iowans was identified and their responses to a lengthy questionnaire were secured in a personal interviewing situation conducted by trained interviewers. A total of 480 individuals, 244 men and 236 women, were interviewed. The responses are, therefore, considered a highly reliable index to rural attitudes in Iowa.

In addition to the response by men and women, additional analysis was made in terms of farm organizational affiliation, political party affiliation, educational level of respondents, gross income, whether the respondents had children in elementary school, high school, or no children enrolled in school, and by age categories.

The responses are summarized below. All figures are reported in percentages.

1. PLEASE CHECK ALL THE FOLLOWING WHICH YOU CONSIDER TO BE MAJOR STRENGTHS OF THE EDUCATIONAL PROGRAM PROVIDED CHILDREN IN YOUR SCHOOL DISTRICT.

	Men	Women	Total
a. Broad program that meets the needs and interests of all children.	60%	60%	60%
b. Extensive vocational training choices.	28	27	27
c. Excellent teachers.	41	49	45
d. School serves as the central point for community activities.	29	33	31
e. Others.	5	3	4
f. There are no major strengths.	8	6	7

Parents with children enrolled in school indicated a, b, c, and d more frequently than did those with no children in school.

2. CHECK ALL THE FOLLOWING WHICH YOU CONSIDER TO BE MAJOR WEAKNESSES IN THE EDUCATIONAL PROGRAM PROVIDED CHILDREN IN YOUR SCHOOL DISTRICT.

	Men	Women	Total
a. Too much emphasis on preparation for college.	16%	18%	17%
b. Too little vocational training.	31	32	32
c. Poor quality teachers.	14	13	14
d. Too few courses to meet needs and interests of all children.	10	14	12
e. Studenst lack adequate competition.	2	6	4
f. Others.	9	8	8
g. There are no major weaknesses.	32	30	31

Women with no children in school indicated a, b, c, and d more frequently than did any other group.

3. WHICH SIZE HIGH SCHOOL DO YOU THINK IS MOST LIKELY TO PROVIDE THE BEST EDUCATION FOR CHILDREN?

	Men	Women	Total	1961 Total
a. Around 100 pupils or less.	12%	5%	8%	17%
b. Around 200 pupils.	25	30	28	31
c. Around 300 pupils.	29	34	32	27
d. Around 400 pupils.	21	16	18	16
e. 500 pupils or more.	11	13	12	9

Several interesting parallels were noted in responses to this question. Sixty-nine percent of the age group 35–49 indicated high schools of 300 or larger as the most desirable. In the age groups 21–34, 35–49, and 50–64, a larger percent of men than women indicated the desire for larger high schools. However, 68 percent of all women respondents over 65 indicated a desire for high schools of 300–500 students.

As the educational level of the respondents increased, so did their desire for larger high schools. Seventy percent of all respondents with some college education favored high schools of 300 or larger.

The opposite was true when comparing the gross income of respondents. Sixty-nine percent of those earning $9,999 or less favored high schools of 300 or more while only 55 percent of those with incomes of $20,000–39,999 favored high schools of this size. Over 75 percent of the respondents with gross incomes in excess of $40,000 favored the larger high schools.

A similar survey was conducted in 1961. There are indications that rural people have raised their sights regarding school size somewhat during the past seven years.

4. HOW DO YOU FEEL ABOUT THE SIZE OF YOUR SCHOOL DISTRICT?

	Men	Women	Total
a. Too large.	25%	22%	23%
b. About right.	62	62	62
c. Too small.	3	6	4
d. Undecided.	10	10	10

Seventy-four percent of the 21–34 and 35–49 age groups felt their schools were about the right size. Twenty-six percent with 12th grade education or less felt their schools were too large. Only 10 percent with some college education felt their schools were too large. The greater the income the more likely people were to be satisfied with their present size school.

5. HOW WOULD YOU FEEL ABOUT REPLACING THE PRESENT COUNTY SUPERINTENDENTS WITH AREA SERVICE UNITS OF 3 TO 10 COUNTIES EACH, TO PROVIDE HIGHLY SPECIALIZED EDUCATIONAL SERVICES TO LOCAL DISTRICTS?

	Men	Women	Total
a. Strongly approve.	16%	12%	14%
b. Mildly approve.	19	19	19
c. Undecided or neutral.	34	45	40
d. Mildly disapprove.	14	8	11
e. Strongly disapprove.	18	17	17

The older the individual and the more education he possessed, the more likely he was to favor merging counties into larger service units.

6. ASSUME FOR THE MOMENT THAT THE PEOPLE OF IOWA DECIDED THE BOUNDARIES OF PRESENT SCHOOL DISTRICTS SHOULD BE CHANGED IN ORDER TO PROVIDE A BETTER EDUCATION FOR CHILDREN. WHICH OF THE FOLLOWING METHODS WOULD YOU PREFER?

	Men	Women	Total
a. Have statewide plan for school districts developed.	12%	12%	12%
b. Set guidelines and criteria for adequate districts and hold local districts responsible.	21	20	20
c. Let county boards of education and local districts decide how to organize.	57	62	60
d. Other.	5	4	5

As the educational level and income level of respondents increased, they were more likely to favor establishing guidelines and criteria. Fifty percent of the respondents with some college education favored this course of action.

7. WHAT DO YOU THINK IS THE MAXIMUM TIME CHILDREN SHOULD SPEND RIDING A BUS ONE WAY TO HIGH SCHOOL?

	Men	Women	Total
a. 15 minutes or less.	1%	1%	1%
b. 16 to 30 minutes.	34	45	39
c. 31 to 45 minutes.	42	42	42
d. 46 to 60 minutes.	22	12	17
e. 61 to 90 minutes.	1	0	1

Respondents in the 21–34 and 35–49 age categories with higher educational levels generally considered longer periods of transportation time acceptable.

8. WHICH OF THE FOLLOWING STATEMENTS REPRESENTS YOUR THINKING ABOUT ALL SCHOOL EXPENDITURES?

	Men	Women	Total
a. Too much money is being spent on schools.	38%	23%	30%
b. About the right amount is being spent for schools.	56	62	59
c. Too little money is being spent for schools.	6	15	11

Forty-three percent of all respondents over age 50 felt too much money was being spent on education. Individuals in the two lowest gross income categories, under $5,000 and $5,000–9,999, also felt too much money was being spent. One of the few areas of significant difference between men and women respondents related to responses to this question.

9. PLEASE CHECK ALL OF THE FOLLOWING WHICH YOU FEEL WOULD BE DESIRABLE AND PRACTICAL MEANS OF REDUCING EDUCATIONAL COSTS. (Responses will total more than 100% since multiple responses were solicited)

	Men	Women	Total
a. Operate schools for 11 or 12 months a year.	13%	12%	13%
b. Organize schools into more efficient districts.	38	37	37
c. Require all students to take similar programs so courses could be reduced.	12	10	11
d. Reduce the number of teachers.	3	1	2
e. Reduce the number of administrators.	22	16	19
f. Reduce salaries of teachers and administrators.	5	3	4
g. Other means.	20	22	21

Forty-six percent of all men respondents with children enrolled in either elementary school or high school favored organizing efficient districts, while only 36 percent with no children in school felt similarly. Only 36 percent of women with children in high schools, however, favored this approach.

10. WHICH OF THE FOLLOWING SEEMS THE MOST REALISTIC AND PRACTICAL DISTRIBUTION OF SCHOOL COSTS AMONG FEDERAL, STATE, AND LOCAL GOVERNMENTS?

	Men	Women	Total
a. 5% federal, 15% state, 80% local	12%	7%	10%
b. 5% federal, 25% state, 70% local	11	12	12
c. 10% federal, 40% state, 50% local	29	23	26
d. 25% federal, 50% state, 25% local	20	10	14
e. Undecided	30	48	38

Older age groups of both men and women generally favored finance programs with smaller amounts coming from local taxes. The higher the educational level, the more likely respondents were to favor finance programs according to major responsibility to local governments. The very sizable portion who are undecided may be indicative of the general public's lack of knowledge regarding school finance programs.

SUMMARY

The responses can be summarized in a few general statements. Rural Iowans:

- Are generally satisfied with the size of their schools and the scope of present curricular offerings.
- Feel optimum educational opportunities can be secured in high schools enrolling 200–300 students.
- Consider broad curricular programs that meet the needs and interests of all children the greatest strength of their schools.
- Consider the lack of vocational training as the greatest weakness, but many feel their schools have no major weaknesses.
- Consider the size of their present school adequate but indicate that reorganization would result in more efficiency and economy.
- Would prefer the responsibility for future reorganization be delegated to local districts and county units.
- Are generally receptive or indifferent to the concept of Regional Educational Service Agencies.

SUMMARY REPORT
QUESTIONNAIRE FOR PARTICIPANT ANALYSIS AND POINTS OF VIEW
CONFERENCE ON VOCATIONAL EDUCATION AND AREA EDUCATIONAL DISTRICTS

Great Plains School District Organization Project
November 28-29, 1967
Lincoln, Nebraska

Number of questionnaires returned as of December 6, 1967—32

1. Agreement or disagreement with statements pertaining to:

	Strongly agree	Agree	Generally Agree	Disag.	Strongly disagree
a. Education for all	26	4	1	–	–
b. Optimum vs. minimum	20	8	3	–	–
c. Human and material resources	21	10	–	–	–
d. Flexibility in school district organization	20	9	2	–	–
e. Education is a state responsibility	20	7	3	1	–

2. Seventeen favored holding two conferences next spring; 12 favored one conference. Three did not respond.
3. The majority favored a two day conference.
4. The participants voted for comprehensive vocational education opportunities at the secondary school level by a vote of 24–2.
5. All participants voted for comprehensive vocational educational opportunities at the post high school level.
6. Responsibility in providing leadership was approved as follows:

	State Bd. of Ed.	State Bd. for V.E.	Bd. of Regents	No Ans.
a. Vocational Education at the high school level	30	2	–	–
b. Vocational Education at the post high school level	22	5	3	2
c. Technical training at post high school level	23	4	3	2
d. Technical training as an integral part of community or junior college programs	19	1	6	4

7. Comprehensive vocational education programs at area centers for high school students would be operated by:

The board of education for the area center	25
The state	5
No answer	2

8. Post high school vocational-technical programs should be operated by:

A board of education for the area center	20
The state	8
no answer	4

9. Do you favor:

a. local school districts, each of which is capable of providing vocational education, post high school voc-tech. education, special education, all under one board of education	15
b. multiple administrative districts (separate admin. districts for different purposes, such as public education, vocational education, post high school vocational-technical education, community colleges, etc.)	16
No answer	1

10. Should guidelines for school district organization provide for:

a. Single administrative districts of sufficient size to provide all programs and services:

Yes	7
No	6
No answer	19

b. Area educational districts (thus making possible smaller administrative districts for greater local control, and with area educational districts providing supplementary programs and services)

Yes	25
No	0
No answer	7

11. If Area Educational Districts were to be created in your state, do you believe that they should be:

	Yes	No	No Answer
a. An arm of the state department of education	5	14	13
b. An agency of the people, with local control	9	8	15
c. Locally controlled but working cooperatively with the State Department of Education	27	0	5
d. Financed by the state	3	12	17
e. Financed by local taxation	1	12	19
f. Financed by local and state funds	28	0	4

12. In your opinion are socioeconomic areas of a state worthy of further exploration as potential centers for:

	Yes	No	No Answer
a. Administrative districts for public education	19	4	9
b. Area Educational Districts	27	1	4
c. Vocational-technical education	27	1	4
d. Community and/or junior colleges	20	4	8

DOES SCHOOL DISTRICT REORGANIZATION REALLY MAKE A DIFFERENCE?*

Francis E. Griffin
Assistant Commissioner for Educational Administration and Supervision
New York State Education Department

Benefits From District Reorganization in New York

1. **It has helped eliminate the obsolete by hastening the elimination of expendable features of yesterday's educational organization such as the one-teacher school.**
2. **It has permitted the replacement of obsolete and unsafe school buildings by those meeting present-day standards.**
3. **It has eliminated duplication and has permitted a new breadth and depth in critical high school areas of instruction.**
4. **It has permitted the introduction of sound business and administrative practice.**
5. **It has equalized the educational and financial burden.**
6. **It has brought to play human resources not available under an antiquated system.**
7. **It has brought new dimensions to lay control and has permitted the development of true leadership on the part of boards of education and advisory groups.**
8. **It has made possible an immediate gain to the individual pupil.**
   —a greatly expanded definition of individual need.
   —a concern for the opportunities for all children, whether it be for the physically handicapped, the slow learner, or the honors pupil.
   —a paying of attention to pupil interests, whether they are toward the performing arts, technology, a service vocation, or admission to college.

A Comparison of Different Size High Schools

1. **The 300 pupil high school compared with the 100 pupil high school:**
   —3 times as many constants.
   —twice as many electives.
   —an average class enrollment of 12.7 compared with 8.2.

***Excerpts from an address delivered at the American Association of School District Administrators, Atlantic City, February 20, 1968.**

2. The 700 pupil high school compared with the 300 pupil high school:
   - —twice as many courses.
   - —twice as many electives.
   - —an average class enrollment of 15.7 compared with 12.7.
3. The 1,250 pupil high school compared with the 700 pupil high school:
   - —two and a half times as many constants.
   - —nearly twice as many electives.
   - —an average class enrollment of 15.7 compared with 15.7.

Teachers in the Reorganized Districts

1. The number of teachers employed was the same as before reorganization.
2. There was a major change in teachers:
   - —teachers from the rural schools were entirely expendable.
   - —they were traded for teachers of high school science, mathematics, English, social studies, agriculture, industrial arts, homemaking, art, music, health, and for speech correctionists, dental hygienists, and remedial reading teachers.
   - —each school has a kindergarten; there were none before reorganization.
3. "This staffing to meet modern needs created a potential for an educational program of breadth and depth that had previously been completely unattainable for the great mass of children in these districts."

Promised Improvements were Produced

(Planned with local committees prior to reorganization, and supported with incentive state aid)

1. Busses were purchased and transportation established as planned.
2. There were almost no appeals over failure of the board to provide adequate transportation. (Before reorganization appeals had come in by the score).
3. The construction of new schools was carried out.
4. The instructional program was strengthened, often ahead of schedule.

Suburban Areas Consolidation With the City

1. New legislation permitted school districts to be established without relationship to the numerous municipal boundaries within the total area.
2. Within 10 years, 27 cities of under 125,000 population had completely reorganized with suburban areas. This was accomplished:
   - —within the framework of an optional procedure where people must vote to liquidate their districts.
   - —even though there were misgivings about partisan political control from city hall.
   - —despite conflicts of philosophy between city and rural interests.
   - —despite the difficulties encountered when tax burdens were equalized (the rich paying vastly more than previously).
3. In one city of 50,000 that merged with 25 suburban and outlying rural districts, the following comparisons may be noted:

Before	After
Control of education by city hall	By the people
Fiscal dependence (city hall)	Fiscal independence
Many one-teacher schools	No one-teacher schools
Few or none of the services that were provided after consolidation	Sound assignment of pupils; adequate libraries; provision to meet individual and special needs; specialized teachers and supervision

Before	After
School buildings old and decrepit	4 modern elementary buildings; 2 new junior high schools; a new high school
Professional staffing per 100 pupils: outside city—40 inside city—43	54 per 1000 pupils
Five people employed to meet the needs of handicapped children	11 people employed to work with handicapped children
Staff for personnel services—12	34 staff members in personnel services
14 employed in administration and supervision	33 employed, more than double
	Fewer teachers not fully certified More teachers assigned to their special interest subjects

"No one can defend the continuance of any unit of government too small to perform the service for which it was created."

ACHIEVEMENT OF STUDENTS IN SELECTED SOUTH DAKOTA SCHOOLS*

E. Gordon Poling, Professor
Department of Educational Psychology and Guidance
University of South Dakota

Purpose

To determine significant differences in academic achievement of students attending South Dakota high schools of selected enrollments.

Plan of the Study

1. Pupil population:
   - —Eleventh grade students
   - —Enrolled in 204 accredited four-year public high schools
   - —Total students—4,707 (2,390 girls and 2,317 boys)
2. Measuring instrument:
   - —Complete ITED battery given in the ninth and eleventh grades.
3. High schools—the 204 accredited schools were divided into five groups based upon the number of high school students enrolled at the beginning of the 1961–1962 school year.

Findings

1. In general, mean gains in ITED standard scores, for the two-year academic period covered by this study, favored those students attending high schools having enrollments of more than 150 students in grades 9–12, inclusive.
2. Boys attending high schools with enrollments of more than 150 students obtained statistically significant greater mean gains in composite scores on the ITED.
3. The mean ITED standard scores of eleventh grade students favored those students attending the high schools with the larger enrollments.
4. Of the 100 analyses made between mean ITED standard scores of the various groups, only three favored the smaller school being compared.
5. Both the boys and the girls attending the larger high schools obtained ITED composite standard scores which were directly proportional to the size of the high school in which they were enrolled.
6. The students from South Dakota included in this study obtained mean ITED standard scores above the national norms for eleventh grade students.

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*From a Study of the Achievement of Students in South Dakota High Schools of Selected Enrollments, 1962.

RURAL DESPAIR AND A RURAL RENAISSANCE*

Orville L. Freeman
Secretary of Agriculture

"In 1960, there were more than 700,000 adults in rural America who had never enrolled in school. More than 3 million others had less than five years of school and are classified as functional illiterates. More than 19 million others had not completed high school . . . .

"School buildings, facilities, curricula, programs and teachers do not measure up to urban standards . . . .

"Low salaries discourage attracting and holding better teachers in rural schools.

"The percentage of rural teachers not properly certified is about twice as high as for urban teachers.

"Counseling of rural students is limited and frequently lacking . . . .

"The dropout rate is highest among rural high school students. In 1960, more than 2.3 million dropped out of school before graduating.

"Rural students score lower on verbal facility and other tests when measured against their urban counterparts.

"In 1960, only half the proportion of rural youth as urban youth enrolled in college.

"The rural youth who did go on to college scored lower on entrance examinations and more often had preparation deficiencies that had to be made up . . . .

"With a little more than a fourth of the nation's total population—54,000,000 measured against 204,000,000—rural America has nearly half the total poverty of the nation. One of every eight persons in metropolitan centers lives in poverty. One of every four lives in poverty in rural America.

"Underemployment of rural people amounts to about 15 percent of those between 20 and 64 being unemployed. This is all the more distressing when contrasted against the national unemployment rate of only 3.5 percent . . . .

"Half of the poor homes in America are in rural areas. A million are unfit for habitation.

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*Excerpts from an address delivered at the annual convention of the American Association of School Administrators, Atlantic City, New Jersey, February, 1968. The above excerpts were taken from a digest of Secretary Freeman's address and reported in *Rural Education News*, Volume 20, Number 1 (March, 1968), Department of Rural Education of the NEA, Washington, D. C.

"Rural residents have roughly half the number of doctors per 100,000 people as city people, and only a third the number of dentists proportionately.

"Today, because of unplanned rural depopulation and unplanned metropolitan impaction, 70 percent of our people are living on only one percent of the land. We'll add another 100 million Americans to the scene in the next 32 years and by that time, unless something is done to stop the trend, some 240 million of us will be crushed into urban areas occupying only four percent of the total land area of this spacious nation!"

"If we can stop the flow of people into our cities—an influx of some 600,000 rural migrants a year—we can give our cities a breather in their Herculean efforts just to stay abreast of their present crises.

"But we can only do this by adopting a firm national policy, a total commitment to restoring rural-urban balance by creating a rural renaissance, by building into rural America jobs and economic, social, cultural, and educational opportunity on a par with the cities. I am convinced that little can be done to develop rural education until far more is done to develop the total rural community. And by the same token rural development is impossible without a sound educational program."

"The federal government has some 500 programs that can help, but making them work takes local initiative, local leadership, and local planning . . . .

"We have already learned that the key to proper development lies in comprehensive planning, preferably on a multicounty basis. We have learned that it is extremely difficult for a single rural county to offer a full set of community services of the calibre needed for sustained growth. But we have also learned that a group of counties, usually with a small or medium-sized city as its center, within easy commuting range, can provide both local resources and the framework needed to make full use of federal and state programs for development . . . .

"A rural renaissance is getting underway . . . . The great need now, as the kids would say, is 'go go leadership'."

EMERGING CONCEPTS AND SCHOOL DISTRICT ORGANIZATION

Ralph D. Purdy, Director
Great Plains School District
Organization Project

School district organization is in turmoil. On the one hand it is already 75 years too late to meet the vocational training needs of an industralized society. On the other hand research related to how children learn and the impact of new technologies on the learning process challenge educational statesmen to design a school organizational structure that will not be three quarters of a century outdated before it is needed.

New and emerging concepts

New and emerging concepts are already proving the inadequacies of the present structure. Few school districts are able to apply and to utilize the best that science and technology is making available for the learning process and for meeting the rapidly changing needs of the American way of life. Some of these concepts may be identified as follows:

- The non-graded elementary school.
- The non-graded high school.
- Emphasis away from subject matter per se to ideas; utilization of knowledge and information for problem solving, etc.
- Implementation of research findings concerning the learning process in the classroom and in related educational activities.
- The development of teams of specialists coordinating their services for improved learning activities and programs.
- Reduction and even elimination of the segmentation of knowledge in the historical subject matter fields.
- Changing curriculum with changing needs.
- The impact of technological developments in the educational field.
- Individualized instruction.
- Computer enhanced instruction control.
- Utilization of sophisticated information retrieval systems.
- Full tutorial computer assisted instruction (CAI).
- Guidance counseling computerized support systems.
- Computer controlled T. V. education.

Current limitations

- All of the above concepts may not develop, but some will.
- Many of the programs are still in the experimental stages.
- Financial resources of many districts are inadequate to:
  - —Meet the costs of many of the programs.
  - —Provide leadership for innovational programs.
  - —Develop adequate in-service programs for the preparation of teachers and administrators for optimum implementation of the emerging concepts.
- Standardization and routinization hinder conceptual implementation.
- In general the organization of school districts is not adapted to developing and promoting innovational programs and services.
- Many programs, such as full tutorial CAI, are very challenging and hold a significant potential for the future, but their relevancy remains to be proven.
- The hardware has been developed and is available, but the software is very much in the experimental and exploratory states.
- School districts limited by size and finance to leadership by generalist administrators lack the time and the know-how to understand and to plan for the utilization of emerging and developing concepts and practices in education.
- The organization of education into comparatively small school districts negates the potential leadership within and for specialized areas of the many programs and services.
- State Departments of Public Instruction, operating within policies based on minimum standards and regulatory procedures, lack the leadership potential for assisting and coordinating a state-wide program for development consistent with emerging and evolving educational concepts.

Implications for school district organization

- Some of the concepts will materialize. Education must be organized to utilize tested and proven concepts, or their general implementation will be delayed for one, two, or more decades.
- If the gap between conceptualization and implementation is to be narrowed in the future, the state school system must be so organized that the human and material resources can be directed toward early and effective transition from a tested and proven idea stage to general practice in all the schools of the state.
- The day for educational leadership by administrators as generalists is past. As in business and industry, the scientific and technological developments, the emerging concepts in the learning process, and the increasing demand for excellence within shorter and shorter periods of time necessitate leadership by a coordinated team of highly trained specialists.
- The emerging concept of leadership by a team of highly trained specialists necessitates a type of district organization in size and in financial resources that will make such leadership possible at an acceptable level of per pupil cost.

- The time may not be far distant when the hardware and the software will facilitate a form of individualized instruction which will revolutionize present concepts of school district organization. Perhaps the sparsity factor will no longer be a limitation with computerized T.V. and remote control computer terminals. But until this time comes, the structure for education must have the highly trained and specialized leadership potential to adopt and to adapt the contributions of science, technology, and research to the educational process.
- Although the internal structure of education (non-graded, non-sectioned schools, individualized instruction, etc.) may be significantly changed in the future, it is probable that a substantial pupil and financial base will be required to provide such programs and services at an acceptable level of quality with efficiency of organization and economy of operation.

SUGGESTIONS AND RECOMMENDATIONS by SIX KNOWLEGEABLE AND NATIONALLY RECOGNIZED ADMINISTRATORS

The Consultants

W. E. Bishop, Superintendent of Schools, Englewood, Colorado

William Emerson, Superintendent to Oakland County Schools, Pontiac, Michigan

Robert Gilchrist, Director, Mid-Continent Regional Education Laboratory, Kansas City, Missouri

Thomas Quick, Assistant Superintendent of Public Instruction, The State Department of Education, Columbus, Ohio; President, National Education Association, County and Intermediate Unit Superintendents

Arnold W. Salisbury, Superintendent, Cedar Rapids City Schools, Cedar Rapids, Iowa; President, The American Association of School Administrators

E. C. Stimbert, Superintendent of Memphis City Schools, Memphis, Tennessee; Member Executive Committee, American Association of School Administrators

Editor's note: The above six consultants were invited to meet with the Project Staff on March 12, 1968, to share their judgment and their convictions about the organization of school districts to provide efficiently and economically adequate educational programs and services for all youth and adults. The following is a brief summary of their major suggestions and recommendations. A more complete statement of their proposals will be found in a companion volume entitled, **Planning For School District Organization.**

1. **Organize for something, not around something.**
2. **Quality in education is dependent upon:**
   - a. **the framework for education,**
   - b. **the quality of the personnel, and**
   - c. **day-to-day contact between the practitioner, the consultant, and the Ph.D. specialist.**
3. **Time/distance is the most decisive factor in the organization of attendance centers.**
4. **Specialists in several disciplines should be organized as a team serving within each attendance center or on a multi-attendance center basis if necessary.**
5. **Secondary school attendance centers should:**
   - a. **be a secondary level or organization (as opposed to a locked-in classification of 9-12; 7-12; 10-12; etc.),**
   - b. **enroll 500 or more students,**
   - c. **offer as many programs and services as possible, but coordinate with other centers for comprehensive educational opportunities, and**
   - d. **make available comprehensive vocational educational programs for all secondary school pupils.**
6. **Truly comprehensive secondary school programs must be multi-district or multi-attendance centers in high enrollment districts.**
7. **The new concept of administration is one emphasizing the team approach in educational leadership.**
8. **The three echelon organization system was unanimously recommended.**
9. **All education on an area basis should be under one area board of education, including public school programs and services at an area level, vocational education, technical education, post high school education, and community colleges.**
10. **Education is a major component of vocational rehabilitation. It should be under the State Board of Education and administered through the area (multi-district) board of education.**
11. **Business management should be exercised at three levels: the state, the area, and the local school district, with an appropriate delegation of functions and responsibility at each level.**
12. **Many programs and services must be developed by the area agency (multi-district) in order to provide the pupil and the operational cost bases necessary for quality of programs and services, and for efficiency in organization and economy of operation.**
13. **The optimum size district is 20,000–30,000 public school pupils.**
14. **The tax base should be the area educational agency for all public education.**
15. **School district organization should be effected through mandatory legislation.**

PART VII

A REVIEW OF THE POSISION PAPERS

FINDINGS AND RECOMMENDATIONS REPORTED IN THE POSITION PAPERS

Ralph D. Purdy
Director
Great Plains School District Organization Project
and
Ellis G. Hanson
Iowa State Director

The response to the "Invitation to Planning in Education," which was extended in each of the four states, was most gratifying. A total of 104 studies and reports were prepared and utilized in arriving at the guidelines proposed in the Project Report. Of this number, fifty-four were position papers developed in the areas of educational needs, demographic factors, curriculum and educational programs, educational services, organization and finance (See Table below). Sixty-five of the position papers and reports have been published in brief, annotated form for general distribution; all others were made available for committee study and analysis in mimeographed form.

The authors of the various papers reviewed the literature in their respective fields of specialization and assessed the research pertaining to structure and organization to provide the desired quantity and quality of programs. They interpreted the empirical judgment of knowledgeable leaders about the programs and what was considered to be essential in structure and organization to adequately fulfill the purposes and objectives for which the programs had been developed. This report is a summary of the findings and recommendations as presented by the writers of the several position papers and related studies and reports.

REPORTS AND PUBLICATIONS GREAT PLAINS SCHOOL DISTRICT ORGANIZATION PROJECT

	Number of Reports					
Legend	Iowa	Missouri	Nebraska	South Dakota	Project Office	Total
Position papers:						
Educational needs	1				2	3
Demographic reports	1	1		2	1	5
Curriculum & Ed. Programs	1	2	12		7	22
Ed. Services	1		2	2	4	9
Organization & finance		1	1	3	6	11
Miscellaneous	—	—	—	—	—	—
Total	4	5	15	8	22	54
Related reports and studies	8	4	1	4	33	50
Grand Total	12	9	16	12	55	104

Factors Effecting Change

American society can best be described today and in years to come as fluid and rapidly changing. The explosion of knowledge and the consequent technological developments are exercising a profound influence on every facet of man's existence. In addition, the quest for full citizenship rights by all citizens is resulting in social upheavals in every part of the nation, including the Great Plains States. The rights and responsibilities of the individual in relation to the total society are undergoing dramatic assessment and reevaluation.

Within this general societal change, several distinct trends that have relevance for educational planners are identifiable in the Midwest. The most significant of these social and economic adjustments in Iowa, Missouri, Nebraska, and South Dakota are as follows:

1. The continued implementation of technology in the agricultural industry is resulting in:
   a. consolidation of family farms,
   b. acutely declining rural population,
   c. declining population in villages and small cities,
   d. the expansion of technically oriented ag-related industries and services, and
   e. a significant increase in the labor force in service-related occupations.
2. A population decline exists in most communities under 2,500, an apparent stability in most communities of 2,500, and a pattern of growth in communities above 2,500.
3. Ninety percent of all growth within the four states during the past decade has occurred within 32 Midwest cities. However, central city populations are declining and suburban populations are mushrooming.
4. Urban unrest has been created by inadequate housing, unemployment, poverty, lack of opportunity to exercise citizenship, difficulties encountered in adjustment to urban living, in many instances segregated education resulting from adherence to the neighborhood school concept, and the desire for local determination of educational policy within the central city school system.
5. There is considerable overlapping of many governmental services.
6. There has been a substantial outmigration of the highly trained 18–45 year age segment from the four states to other parts of the country.
7. Birth rates and growth rates are substantially below national rates.

One significant characteristic has prevailed in the patterns of growth that have characterized community structure and organization, and which has contributed directly to the growth or decline of centers of social and economic activity over the past two centuries. This is the approximate one hour travel time to and from the center of the socioeconomic area. The principal elements contributing to the constancy of the one hour factor and the ever expanding distance have been the following:

1. The general acceptance by the people of a maximum of one hour travel time in relation to their respective needs. Small and large trading centers

have been developed or have deteriorated on the basis of this criterion.

2. The number of people to be served.
3. The spatial distance to be covered.
4. The speed of transportation of the period, and within the area served.
5. The time allotment for the movement of goods and services.
6. The technology man has created to facilitate living.

Throughout the history of our country, the one hour travel time factor has remained as a constant, but the distance factor has undergone remarkable change as a result of changes in transportation and communication. Communities, or sections of communities, grow and expand on the basis of this one primary characteristic; and they deteriorate and disappear for the same reasons. This characteristic has been a major determinant in school district organization over the years, and will continue to be a significant influence in the future.

The fundamental necessity for a successful life in a rapidly changing society is the ability to be flexible—to adapt to change. Individual flexibility is a manifestation in part of one's ability to think, that is, to compare, relate, and associate confronting situations in a rational, logical, and analytical manner. Organizational flexibility is manifested, in part, by the ability of existing institutions within society to adapt and adjust to altering needs and demands imposed by the society. Future designs for educational organization must possess the capacity for both individual and organizational flexibility if education is to serve as a vehicle for sustaining and improving the society. This can be realized best through the provision of high quality comprehensive educational programs for all youth and adults based upon identified needs and conducted by efficiently organized and economically operated educational units.

Needs

The basis of all educational planning must be predicated upon an assessment of needs. The organization of education with a state system is not an end in and of itself. An appropriate structural organization enables a state to meet the identified educational needs by providing comprehensive educational programs and services at a high level of quality with optimum efficiency and economy.

Most educational needs identified by federal, state and local governments, by society, labor, business and industry, and by the individual student relate to one or more of the following:

1. the acquisition of knowledge and understandings,
2. the development of skills,
3. the development of individual and social value systems,
4. the development of capacities for individual and group fulfilment,
5. the ability to theorize, to conceptulize, and to relate theory to reality,
6. the maintainance of good mental and physical health, and the correction and improvement of physical and mental defects, and
7. the development of individual potential to its highest level.

Education's main purpose is to prepare youth and adults for the society in which they live—to prepare them for satisfying, contributing, and participating membership in that society.

Comprehensive Programs and Services

Comprehensive educational opportunities for all students are made possible through provision of programs and services to meet the educational needs identified at each level within the state school system. A total of twenty-two papers pertaining to the curriculum and various program areas were prepared by representative leaders in each of the four states and through the Project Office. Seven facets were consistently emphasized by these writers as basically important for the achievement of acceptable and desired results:

1. There is a need to clarify and define the goals for each of the respective areas of the curriculum, and for the total curriculum.
2. There exists a body of content material within each of the several areas of the curriculum which is important, which is in the process of change, and which must be related meaningfully to the individual student.
3. A breadth of program offering is essential if the basic concepts, the objectives of the program area, and the adaptation of the offering to individualized needs, and in program adaptation to changing needs of students and of society.
4. Appropriate staffing with well trained and experienced teachers is a primary factor of quality in program development and in program adaptation to individualized needs and changing needs of students and of society.
5. Each writer emphasized the essential requirement of adequate equipment and facilities for the satisfactory achievement of the educational objectives as related to their respective program areas.
6. Some writers placed stress upon the changing curriculum, the changing methodology, the recent developments in child learning theories and in program adaptation to these changing developments, the increased emphasis upon individualized instruction, and the increasing availability of new and improved tools for learning.
7. Some writers placed stress on a change from compartmentalized, highly structured subject matter areas to an interdisciplinary and interrelated approach for more meaningful learning situations.

Maxey and Thomas pointed out that the smaller the school, the greater the chance that the teacher will: (1) teach in two or more subject areas; (2) have a greater number of subject preparations; (3) be more poorly prepared; (4) receive less salary; and (5) have a much larger pupil load. Also, they found that schools with a total enrollment of 1,500 pupils or more were required in order to secure acceptable benefit of teacher preparation, and for the availability of more specialized personnel.

In another section of the same report Maxey and Thomas stated that on a computer analysis of the curriculum offering in all Iowa High Schools the average number of curriculum offerings in senior high schools was 69.8 in school districts with an enrollment of 500–749; 77.7 in schools with an enrollment of 1,500–1,999; and 100.7 in schools with an enrollment of 3,000 or more. The curriculum offerings in junior high schools of similar district enrollments were 34.0, 38.0 and 56.8 respectively. Significant differences favoring the larger districts were found in the number of curriculum offerings by subject matter areas. These included foreign language, fine arts, and all areas of vocational education. Maxey and Thomas summarized their findings as follows:

1. The larger the school district the more course offerings that are available to the pupils.
2. As enrollments increase, the more different course offerings are available in the areas of foreign language, business education, vocational education, and technical education.
3. Many course offerings in the larger schools are not found in the small enrollment schools.
4. Larger schools tend to combine, to coordinate and to strengthen offerings in ways that may not be possible in the smaller schools.

MEAN FREQUENCY DISTRIBUTION OF SELECTED AREAS OF THE CURRICULUM IN IOWA BY SIZE OF DISTRICT

	District enrollment		
Legend	500–749	1500–1999	3,000 & above
No. Senior H. S. curriculum offerings	69.8	77.7	100.7
No. Junior H. S. curriculum offerings	34.0	38.0	56.8
No. Senior H. S. curriculum offerings:			
Communication skills	7.1	6.6	8.2
Fine arts	4.9	4.5	7.3
Foreign language	2.4	3.6	8.4
Mathematics	6.5	5.7	6.6
Science	5.1	4.4	4.8
Social Studies	5.8	5.4	5.1
Agriculture	1.0	1.0	1.2
Homemaking	3.1	3.2	2.8
Industrial education	3.6	3.0	3.5
Business education	3.3	3.7	7.9
Vocational education	2.7	3.0	4.1
Marketing	—	—	1.0
Special education	—	1.8	1.0
Technical education	—	—	6.8

Source: Maxey, E. James and Thomas, Donald R., "Selected Comparisons of Teacher and Curriculum Characteristics Related to Educational Innovation for the Great Plains." (Prepared at the Iowa Educational Information Center, The University of Iowa, Iowa City, Iowa. Prepared for the Great Plains School District Organization Project. Mimeographed. 1967.) 124 pages.

The President's Panel on Vocational Education and the President's Committee on Youth Employment in 1963 placed great stress upon the need for programs of vocational training. Subsequent national reviews and reports have reemphasized the urgency of this need to be met throughout the country. Major increases in the allotment of federal money for this purpose have been made during the past five years. Shoemaker, in his position paper on vocational education, stressed the importance of providing comprehensive educational opportunities for all youth and adults at both the secondary and post high school levels. He supported the position that an adequate pupil and financial base is to be found in an area vocational school serving multi-administrative districts, or one which serves multi-secondary school attendance centers in one administrative district. In general, a pupil enrollment base, K-12, of 14,000 to 42,000 pupils is required to make possible efficiently organized and economically operated comprehensive vocational educational opportunities.

Turner reported that a district would need 20,000 to 25,000 students in order to meet all conditions for the curriculum in a satisfactory manner. After analyzing curriculum needs and programs of instruction he recommended that secondary school attendance centers should have a pupil enrollment from 500 to 1,500 pupils. The findings and recommendations by Maxey, Thomas, and Turner appear to be consistent with the projection of pupil enrollments to meet the identified needs as interpreted by the writers of the several position papers both in the content fields and in the newer concepts for child learning and development.

The several writers emphasized the need for comprehensive educational opportunities for all students. It was indicated throughout the papers that the availability of comprehensive educational opportunities is enranced by the following:

1. A balanced, flexible, and articulated program, preschool through grade 12.
2. An elementary school curriculum which includes:
   a. A language arts program, with emphasis on oral and written expression; listening; spelling; handwriting; literature; a second language.
   b. A social studies program that enables the child to understand the historical developments of our nation, its form of government, our economic system, and the relationship of our nation to others in the world.
   c. A science program that enables a child to know and appreciate science; to perform simple experiments; to interpret, record, and report accurately; to distinguish between truth and superstition; and to associate and apply science to daily living.
   d. An arithmetic program with emphasis on the usefulness of arithmetic and its practical and scientific applications.
   e. A health, physical education, and recreation program.
   f. A fine arts program in which the child learns to express himself through music, art, and language.

3. A secondary school curriculum with a broad program of studies and activities including:
   - English, language arts, and literature
   - Two or more foreign languages
   - Vocational Education:
     - Agriculture
     - Business education
     - Homemaking
     - Distributive education
     - Trade and industrial education
   - Physical education and health
   - Drama and speech
   - Mathematics
   - Sciences

   - Art
   - Creative writing
   - Music
   - Humanities
4. The provisions of special programs and services which include:
   a. A school media program (Instructional Resource Center).
   b. Pupil personnel services including:
      - Guidance
      - Placement
      - Psychological services
      - Learning diagnosticians
      - Health services
      - Attendance personnel

   c. Special education programs for at least the following areas:
      - Gifted
      - Mentally retarded
      - Visually impaired
      - Acoustically handicapped
      - Cerebral dysfunctions
      - Orthopedic handicaps and special health problems
      - Speech and language impairment
      - Emotionally disturbed
      - Delinquent

   d. Pupil transportation services.
   e. School lunch services including:
      - Breakfast program
      - Lunch program
      - Milk program
      - Special assistance programs to needy
      - Non-food assistance programs
      - Government commodity program

   f. Adult and Continuing education programs.

Aslin, in summarizing a defensible minimum for a comprehensive educational program, reported the need for a curriculum offering of the following units:

Mathematics	5–6	Social studies	6
Foreign language	4	Communication skills	6–7
Business education	5–6	Health and physical education	2
Industrial arts	2–3		
Science	5	Art and music	5
Home economics	2	Vocational trade areas	4 or more

Total number of units—in excess of 60.

It must be realized, of course, that this system of counting units may be antiquated within the near future. Significant developments and reported remarkable progress is being made with non-graded elementary and secondary schools, non-sectioned classes, and individualized instruction with the use of the computer and with other kinds of hardware and related tools for learning and instruction. However, it appears at this time that the school district organizational requirements to facilitate one or the other are not too dissimilar, and that the guidelines for the one are probably appropriate for the other.

These requirements appear to be somewhat less than the desired course offering as recommended by writers within specialized areas of the curriculum. However, Aslin provides for these needs by his statement that the 60-unit course offering is a "defensible minimum for a comprehensive educational program."

Quality

Quality is one of the more intangible aspects to describe in education. Discussing quality is attempting to describe what happens to an individual in the educative process, what happens to him as a result of attending school and participating in school-directed activities.

According to Schwartz quality education should produce individuals who:

1. utilize talents and abilities to the maximum of their potential,
2. seek to continue education throughout life,
3. are able to participate actively and positively in the world of work,
4. can engage in problem-solving at abstract and concrete levels, and
5. are developing positive patterns of values which sustain them as individuals and as members of society.

Schwartz identified ten keys to a quality educational program:

1. Professional staff with high qualifications are employed and are given the opportunity to perform the duties for which they are qualified.
2. Educational programs are designed to maximize the educational attainment of all the people in the community.
3. Specialized personnel and instructional services are available for all students.
4. Modern instructional media are available to all teachers and provisions for their effective and efficient use are assured.
5. Experimentation, innovation, and the process of change are readily apparent.
6. Systematic and organized evaluation and research are conducted continuously and the findings are used to improve programs.
7. Supporting services and personnel are available to maintain an effective and efficient system.
8. Physical facilities conducive to a stimulating educational environment are available.
9. Community support and understanding are readily evident.
10. Adequate financial support to provide for the essential ingredients of quality education is made available.

Schwartz held that the final assessment of quality is in terms of the performance of the finished product of the school whether it be the dropout or the graduate. The measurement of quality is not in terms of buildings, motion picture projectors, teacher aides, or homeroom coffees. While there appears to be substantial evidence that the level of quality of a school or district is directly related to the extent to which the conditions described earlier are available, the burden of proof pertaining to the level of quality is found in performance mesaures. It remains for the professional personnel to develop imaginative approaches to evaluate quality of the school system.

Efficiency—Economy

Efficiency in educational organization relates to the optimum utilization of all human and material resources in support of the comprehensive program. Efficiency is enhanced by having an adequate number of pupils to insure the employment and full-time utilization of well-trained teachers, administrators, supervisors, and special personnel.

Economy in the conduct of the state system of education to insure optimum utilization of the tax dollar requires that:

1. all areas of the state to be in a district maintaining at least a preschool through twelfth grade program,
2. a large geographic area for the taxing base to eliminate inequities,
3. an adequate pupil population to guarantee reasonable per pupil costs for comparable programs and services, and
4. state contributions to administrative district operations which approach or exceed 30-40 percent of basic educational costs.

Whitt found that an optimum district for efficiency and economy in business administration necessitated an administrative district servicing educational programs for 10,000 to 30,000 pupils, and an intermediate administrative unit servicing 30,000 to 50,000 pupils. He also indicated that inter-area cooperative or regional units were essential for some kinds of services, such as data processing, school plant planning and building programs, and for research and development. Purdy reported a probable minimum of 60,000 to 100,000 pupil base for efficient and economical utilization of electronic data processing. Robinson recommended an intermediate unit media organization to make possible the essential breadth and scope for school media programs. In a study of school building costs in Missouri, Englehart found that per pupil costs ranged from $1,540 in buildings housing 609 pupils to $2,800 for 159 pupils. Similarly, expenditures for plant maintenance and operation costs increased from $41 per pupil in school districts of 10,000 to 20,000 pupils, to $56 per pupil in districts with an enrollment of less than 500. In a very complete study of Iowa schools, Manatt reported that per pupil costs for central administration increased from about $10 per pupil in large districts to $80–$100 per pupil in small districts. He reported that if administrative services from the central office are considered to be important, then district enrollments must be 3,000 or more for acceptable efficiency and economy of operation.

Manatt reported that the unit costs per pupil varied from $400 in high schools with an enrollment of 1,500 to $700 in 100 enrollment schools. In a study of per pupil administrative costs in three of the four states, he found an average of 8.08 per pupil in the ten largest districts in Missouri, $11.20 in Iowa and $13.71 in South Dakota. At the other end of the scale the mean per pupil costs for administrative purposes in the ten smallest districts was $77.85 in Missouri, $43.80 in Iowa, and $31.71 in South Dakota. The range was from $3.51 to a high of $100.62 per pupil. His summarized findings include the following:

1. As district enrollments drop, per pupil costs for central administration, excluding costs of administering attendance units, increase rapidly.
2. Large districts spend more per pupil for special services than for supervision, and a smaller amount for general administration.
3. Median sized districts spend more dollars for general administration than for special services or educational supervisors.
4. Smaller districts of each state spend almost nothing for special services; A portion of the administrator's time is devoted to teaching.
5. Per capita expenditures for both general administration and total central administration vary inversely with district enrollment.
6. Small and median-sized districts do not have the services of educational supervisors or personnel assigned to special services.
7. Districts with 10,000 or more students spend more money for supervision and special services than for general administration.
8. Districts of median and smaller size schools spend most of their total administrative budget on superintendents, assistants, and secretaries.
9. Only the larger districts included in the study offered a broad range of administrative services.

There is a high degree of consistency in all of the position papers, whether they concern acceptable program and service function or efficiency and economy of operation. The findings strongly support administrative districts of 3,000–3,500 pupils or more for adequate, efficient, and economical program offering and service functions in selected areas. This excludes vocational education and many areas of special education. Pupil enrollments of 15,000–20,000 or more are essential in the support of comprehensive educational opportunities for all students. In addition, there was supportive evidence for area educational service agencies serving 30,000–50,000 or more students if many essential programs and services are to be provided at an acceptable level of quality, with efficiency of organization and economy of operation.

Organization

When viewing optimum organizational patterns for a state system of education, the closely coordinated structural levels under the direction of one state board appears most defensible for the Midwest. Administrative districts should possess the capabilities of providing the programs and services recommended earlier. Enlarged and strengthened multi-county area education service agencies could then provide a wide array of specialized programs and services not feasible within administrative districts. The multi-county unit should be developed to coordinate all area education functions—those programs and services rendered to administrative districts as well as post high school programs and services.

The state education agencies must provide new and expanding leadership functions in order to insure education as a vehicle for sustaining and improving society and to perform its role and function as the officially established state agency for education. Coordination and performance of legislatively delegated regulatory functions will continue to be a vital responsibility of state education agencies. However, the importance of this role will diminish with the expanding leadership function. The state education agency should provide for the direction of all educational activities at the elementary and secondary levels, the post high school level in vocational technical schools and community colleges and in the area of vocational rehabilitation services.

It appears at this time that the most satisfactory means of achieving optimum organizational structure will be through some form of legislative mandate which prescribes a total state system incorporating all geographic areas of the state into a network of administrative districts and area education service agencies (See Summers, "Effective Legislation for School District Organization").

Urban Problems

Levine and Havighurst identified six major problems and imperatives associated with metropolitan development:

1. Fragmentation in the structure of local government.
2. The socioeconomic stratification and racial segregation.
3. Inadequate social environments for middle-income students in single class sections of the city and the suburbs.
4. Weakening of the unifying norms which facilitate productive interaction among citizens in the metropolitan areas.
5. Physical deterioration and the crisis in public finance in part of the metropolitan area.
6. The need for cooperation to solve the major problems of the metropolitan area.

In accordance with the need to conduct certain educational functions on a metropolitan area-wide basis in order to selve the above critical emerging problems of a metropolitan society, it was recommended that officially designated metropolitan intermediate districts be formed which should have the authority to perform all functions relevant to a metropolitan area. Specifically identified were the following responsibilities:

1. to represent and to act on behalf of member districts on all area wide commissions and organizations,
2. to raise a portion of revenues for public education,
3. to initiate and to implement programs to reduce social-class stratification,
4. to equalize professional salaries among the several districts,
5. to provide specialized personnel for research and development,

6. to develop and to implement projects for the improvement of human and intergroup relations, and
7. to collect area wide educational statistics, to develop improved measures to assess the quality of the schools, and to assess the educational effort.

Challenge of Change

On the educational scene today are many experimental programs, practices, and innovative activities. Many of these have not reached the perfection tha twould warrant wide implementation within a total state education system. However, many of these will find their way into general acceptance as their value and usefulness is tested and proven in practice. The organization must be capable of adapting and adjusting to these potentially imminent changes, six of which need to be given serious consideration:

1. There is increasing evidence that formal education for all three and four year old children may become an integral part of elementary education programs.
2. Nationally, there is increasing acceptance of expanding education for all students into the 13th and 14th years.
3. With the acceptance of grades 13 and 14 into the public educational organization, a new and promising 6–4–4 organizational pattern is emerging.
4. The continued development and refinement of technology is greatly increasing the potential for significant advancement in individualized programming and instruction. The results of many such experimental programs suggest that students learn more, learn faster, and are more highly motivated when utilizing technological equipment (See Purdy, "Electronic Data Processing in Education;" Purdy, "Emerging Concepts and School District Organization;" and Gilchrist, "New Concepts on the Educational Horizon").
5. Recent findings in research relating to the learning processes are having a profound effect upon instructional techniques, upon the organization of curriculum materials, and upon the age grade placement of learning experiences.
6. Some research presently underway suggests individualized self-realization instruction in smaller sized K-12 attendance centers within relatively large administrative districts in densely populated areas.

These are all promising educational practices in the process of being tested and proven. Whatever the structure for education it should possess the capacity for adjustment to imminent changes, whether those identified above or those that may emerge in the near future.

Throughout history educational organization has been a dynamic, everchanging element within our social system. The rapidity of change in all areas of human endeavor necessitates that educational organization be not only responsive to change, but a part of the change process itself.

Summary Statement

Fifty-five position papers were prepared by specialists in various program and service areas. Emphasis was placed on an analysis of available research and a review of the literature pertaining to essentials to be provided through the educational organization for the satisfactory achievement and fulfillment of the goals and objectives of the several programs and services. Selected findings and recommendations include the following:

1. Demographic change is directly affecting conditions to be met by the educational structure. With sparsely populated areas becoming more sparcely populated and with the continuing urbanization of the nation, the state school system must have great capacity for flexibility and adaptability to rapidly changing conditions in order to provide equitable educational opportunities for all youth wherever they may live in the state.
2. Needs to be met by the public school system are being defined at six different levels, including the local, state, and national governmental levels; and, by society in general, by business and industry, and by the individual pupil enrolled in the public school system. The structural organization for education must be such that programs and services can be provided to meet all identified needs in an efficient manner and with optimum economy in the utilization of the local, state, and national educational dollar.
3. The impact of scientific and technological progress and the greatly expanding world or work demanding unprecedented possession of intellectual and skilled abilities for successful and continuing employment necessitates the availability of comprehensive educational programs and services for all youth and adults.
4. Comprehensive vocational education training programs at the eleventh and twelfth grades and at the post high school level, and technical education at the post high school level, should be available for all youth and adults.
5. Breadth of program offerings (comprehensive programs) are inadequate and uneconomically provided to meet today's educational needs in secondary schools enrolling less than 100 in the twelfth grade.
6. Multi-high school attendance centers are essential to provide the necessary pupil base to make possible efficient and economically operated comprehensive vocational programs.
7. Quality in education will be determined in terms of the performance of the finished product of the school, whether it be the dropout or the graduate.
8. The findings of the several papers strongly support administrative districts of 3,500 pupils or more, and some form of an intermediate echelon, such as an area educational service agency serving 35,000 to 100,000 or more pupils.

9. Multi-county administrative districts and multi-county area service agencies may be essential in the future to provide efficiently organized and economically operated programs and services essential for youth and adults in todays scientific and technologically orientated world of work.
10. New and innovative structural organizations are essential for both the sparsely populated areas and for the growing metropolitan areas.
11. The historical evidence concerning school district organization indicates that a state school system meeting todays needs today may best be achieved through some form of legislative mandate.

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APPENDIX 1

PURPOSES[1]

GREAT PLAINS SCHOOL DISTRICT ORGANIZATION PROJECT

1. To improve the State Departments of Education (Title V, and the primary basis for the entire grant)
2. To assist in resolving some of the major problems of State Departments of Education, including, but not limited to the following:
    a. Bringing about an increased awareness on the part of professional and lay groups of the need for adequate school district organization.
    b. Analyzing and clarifying the role of professional and lay organizations in school district organization.
    c. Developing guidelines to be used to implement programs.
        (1) for school district organization.
        (2) as a part of developed state plans.
    d. Providing comprehensive programs of quality education to meet the needs of all youth in all parts of the state.
    e. Clarifying the role, function, and need for intermediate districts.
    f. Planning for adequate and appropriate follow-up services to those districts which have been reorganized.
    g. Developing an awareness within each state of the relationships between tax structure and rates and school district organization.
    h. Providing data, information, understandings, and insights essential for the introduction and passage of adequate legislation for school district organization.
    i. Pooling the resources of the several states in making a joint attack on a common problem.

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[1] Adapted from "Attached Sheet No. I" *Application for Grant to Strengthen State Departments of Education Under the Elementary and Secondary Education Act of 1965*, Title V, Section 505, P.L. 89-10, Special Project Grant entitled "Brief description of major problems of State Departments of Education which this project has promise of solving or services it proposes to develop."

APPENDIX 2

SUGGESTED ACTIVITIES[1]

GREAT PLAINS SCHOOL DISTRICT ORGANIZATION PROJECT

1. Identification, analysis, and interpretation of available research pertaining to satisfactory administrative units and school centers.
2. Identification, analysis, and interpretation of developmental activities in the several states pertaining to a school district organization which will provide educational programs of quality or excellence to meet the needs of our time with efficiency and economy.
3. The dissemination of information (multi-media) on:
    a. Characteristics of an adequately organized district.
    b. Characteristics of an adequate comprehensive secondary school.
    c. Procedures for local study of reorganization problems.
    d. Guidelines for organization and administration of intermediate districts.
    e. Follow-up activities for school systems which have recently been organized.
4. The development of a systematic program to provide for the follow-up of newly organized school districts. Emphasis is to be placed on:
    a. Various media for communication and understanding of the problems and issues under study.
    b. An adequate plan for consultative services.
    c. Increased leadership activities in the several state education agencies.
5. The development of state and regional institutes and conferences for the purpose of (1) providing information and (2) facilitating adequate communication and exchange of views on ways and means to strengthen state education agency leadership in school district organization with an appropriate involvement of inter-departmental, legislative, professional, and lay personnel.
6. The strengthening of field service programs in State Departments of Education.
7. The rendering of assistance to local educational leaders in the development of exemplary intermediate districts.

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[1] Adapted from "Attached Sheet No. II" *Application for Grant to Strengthen State Departments of Education Under the Elementary and Secondary Education Act of 1965*, Title V, Section 505, P.L. 89-10, Special Project Grant entitled "Description of activities which are proposed to be undertaken and methods and arrangements for working toward project objectives set forth in Section A—item 11."